Cytoskeleton

The cytoskeleton is a filamentous network of F-actin, microtubules, and intermediate filaments (IFs) composed of one of three chemically distinct subunits, actin, tubulin, or one of several classes of IF protein. Cytoskeleton not only helps cells maintain their shape and internal organization, but also provides mechanical support that enables cells to carry out essential functions like division and movement.

The cytoskeleton is involved in intracellular signal transduction at least two ways. First, individual proteins of the cytoskeleton might participate directly in signal transduction by linking two or more signaling proteins. Second, the cytoskeleton might provide a macromolecular scaffold, which spatially organizes components of a signal transduction cascade. Cell migration is a complex and multistep process involved in homeostasis maintenance, morphogenesis, and disease development, such as cancer metastasis, and requires coordination of cytoskeletal dynamics and reorganization, cell adhesion, and signal transduction, and takes a variety of forms. Many signaling pathways including Rho-family GTPases, Paxillin/FAK signaling and PI3K signaling is involved in the process by regulating cytoskeletal activity.

Since the cytoskeleton is involved in virtually all cellular processes, abnormalities in this essential cellular component frequently result in disease. Drugs that modulate microtubule stability, inhibitors of posttranslational modifications of cytoskeletal components, specifically compounds affecting the levels of tubulin acetylation, and compounds targeting signaling molecules which regulate cytoskeleton dynamics, constitute the mostly addressed therapeutic interventions for the diseases including cancer and neurodegenerative disorders.

References:

[1] Janmey PA. Physiol Rev. 1998 Jul;78(3):763-81.
[2] Forgacs G, et al. J Cell Sci. 2004 Jun 1;117(Pt 13):2769-75.
[3] Eira J, et al. . Prog Neurobiol. 2016 Jun;141:61-82.

Target List in Cytoskeleton

Arp2/3 Complex

Actin-related protein 2/3 complex

The Arp2/3 complex is originally identified in Acanthamoeba and consists of seven proteins (actin-related proteins; Arp2 and Arp3, and Arp2/3 complex subunits; ARPC1-5) that are conserved in all eukaryotes, with the exception of some algae, microsporidia and protists. The complex plays an essential role in a wide variety of cellular processes including lamellipodia-mediated cell migration, endocytosis and phagocytosis, by virtue of its ability to generate branched actin filament networks

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Activation of Arp2/3 requires interaction with actin nucleation-promoting factors (NPFs). Regulation of Arp2/3 activity is achieved by endogenous inhibitory proteins through direct binding to Arp2/3 and competition with NPFs or by binding to Arp2/3-induced actin filaments and disassembly of branched actin networks. Arp2/3 inhibition has recently garnered more attention as it has been associated with attenuation of cancer progression, neurotoxic effects during drug abuse, and pathogen invasion of host cells

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Arp2/3 Complex Inhibitors, Activators & Chemicals

187-1, N-WASP inhibitor

Cat. No.: HY-P1045

187-1, N-WASP inhibitor, a 14-aa cyclic peptide, is an allosteric **neural Wiskott-Aldrich syndrome protein (N-WASP)** inhibitor. 187-1, N-WASP inhibitor potently inhibits actin assembly induced by phosphatidylinositol 4,5-bisphosphate (PIP2) with an IC_{50} of 2 μM.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

187-1, N-WASP inhibitor TFA

Cat. No.: HY-P1045A

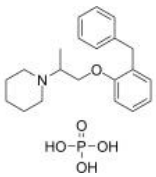
187-1, N-WASP inhibitor TFA, a 14-aa cyclic peptide, is an allosteric **neural Wiskott-Aldrich syndrome protein (N-WASP)** inhibitor.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Benproperine phosphate

Cat. No.: HY-114657A

Benproperine phosphate is an orally active, potent **actin-related protein 2/3 complex subunit 2 (ARPC2)** inhibitor. Benproperine phosphate attenuates the actin polymerization rate of action polymerization nucleation by impairing Arp2/3 function.



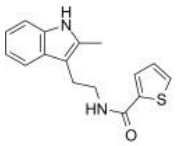
Purity: 99.23%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

CK-636

(CK-0944636)

Cat. No.: HY-15892

CK-636 is a cell permeable inhibitor of **Arp2/3 complex**, that could inhibit actin polymerization, with IC_{50} values of 4 μM, 24 μM and 32 μM for human, fission yeast and bovine, respectively.

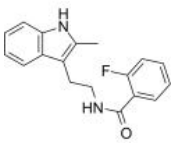


Purity: 98.43%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

CK-666

Cat. No.: HY-16926

CK-666 is a cell-permeable actin-related protein **Arp2/3 complex** inhibitor (IC_{50}=12 μM). CK-666 binds to Arp2/3 complex, stabilizes the inactive state of the complex, blocking movement of the Arp2 and Arp3 subunits into the activated filament-like (short pitch) conformation.

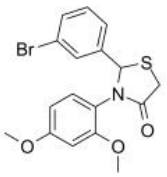


Purity: 99.79%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

CK-869

Cat. No.: HY-16927

CK-869 is an Actin-Related Protein 2/3 **(ARP2/3)** complex inhibitor, with an IC_{50} of 7 μM.



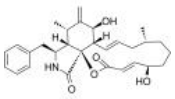
Purity: 99.74%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Cytochalasin B

(Phomin)

Cat. No.: HY-16928

Cytochalasin B is a cell-permeable mycotoxin binding to the barbed end of **actin** filaments, disrupting the formation of actin polymers, with K_d value of 1.4-2.2 nM for F-actin.



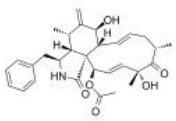
Purity: 99.84%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg

Cytochalasin D

(Zygosporin A; NSC 209835)

Cat. No.: HY-N6682

Cytochalasin D (Zygosporin A; NSC 209835) is a potent and cell-permeable inhibitor of actin polymerization derived from fungus, inhibits the G-actin–cofilin interaction by binding to G-actin.

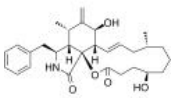


Purity: 99.75%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg

Dihydrocytochalasin B

Cat. No.: HY-N6701

Dihydrocytochalasin B (H2CB) is a **Cytokinesis** inhibitor and changes the morphology of the cells, similar to that of cytochalasin B; does not inhibit glucose transport.

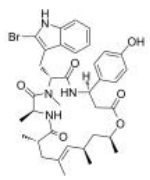


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Jasplakinolide

Cat. No.: HY-P0027

Jasplakinolide is a potent **actin polymerization** inducer and stabilizes pre-existing actin filaments. Jasplakinolide binds to F-actin competitively with phalloidin with a K_d of 15 nM.



Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 100 μg

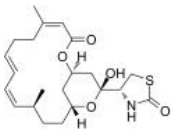
Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

Latrunculin A

(LAT-A)

Cat. No.: HY-16929

Latrunculin A (LAT-A) is a toxin isolated from the red sea sponge Latrunculia magnifica, binds to actin monomers, inhibits polymerization of actin, with K_ds of 0.1, 0.4, 4.7 μM and 0.19 μM for ATP-actin, ADP-Pi-actin, ADP-actin and G-actin, respectively.



Purity: ≥97.0%
Clinical Data: No Development Reported
Size: 100 μg (237.2 μM * 1 mL in Ethanol)

Phalloidin-TRITC

Cat. No.: HY-P2270

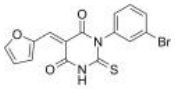
Phalloidin-TRITC is a TRITC labeled, red fluorescence probe for **F-actin**. Phalloidin, bound to actin filaments, reacts covalently with amino acids Glu-IIT, Met-II9, and Met355, which are very close to the nucleotide binding site.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

SMIFH2

Cat. No.: HY-16931

SMIFH2 is a **formin** specific inhibitor. SMIFH2 inhibits actin polymerization by Formins and affects the actin cytoskeleton.

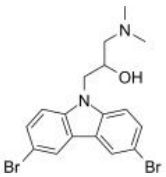


Purity: 98.22%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg, 100 mg

Wiskostatin

Cat. No.: HY-12534

Wiskostatin is a potent and selective inhibitor of neuronal Wiskott-Aldrich syndrome protein (N-WASP)-mediated actin polymerization. Wiskostatin causes a rapid, profound, and irreversible decrease in cellular ATP levels.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Dynamin

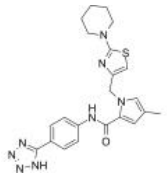
Dynamins are large superfamily GTPase proteins that are involved in various cellular processes including budding of transport vesicles, division of organelles, cytokinesis, and pathogen resistance. Dynamins are involved in scission (cleavage of the vesicle from the parent membrane) of nascent vesicles from parent membranes in eukaryotic cells. Dynamins interact directly with the lipid bilayer at the necks of clathrin-coated pits to sever and release coated vesicles. Dynamins contain five domains, including GTPase domain, middle domain, PH domain, GTPase effector domain (GED), and proline rich domain (PRD), while the dynamin-related proteins (DRPs) lack one or more of these domains or have additional domains. Dynamins and DRPs participate in a wide variety of cellular processes, including budding mitochondrial fission (mammalian Dlp1 and Saccharomyces cerevisiae Dnm1) and fusion (mammalian OPA1, S.cerevisiae Mgm1 and Schizosaccharomycespombe Msp1), vacuolar fission (S. cerevisiae Vps1), interferon-induced anti-viral protection (fish Mx proteins), plant cell cytokinesis and membrane fission (Arabidopsis thalianaDRP proteins), as well as pathogen resistance.

Dynamin Inhibitors

Drp1-IN-1

Cat. No.: HY-125222

Drp1-IN-1 (comp A-7) is a **dynamin-1-like protein (Drp1)** inhibitor, with an IC_{50} of 0.91 μM.

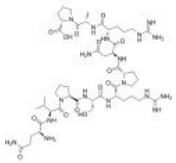


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

Dynamin inhibitory peptide

Cat. No.: HY-P1083

Dynamin inhibitory peptide competitively blocks binding of **dynamin** to amphiphysin, thus preventing endocytosis. Dynamin inhibitory peptide blocks the dopamine D3 effect on GABAA receptors.

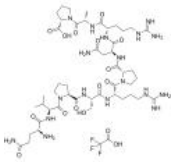


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Dynamin inhibitory peptide TFA

Cat. No.: HY-P1083A

Dynamin inhibitory peptide TFA competitively blocks binding of **dynamin** to amphiphysin, thus preventing endocytosis. Dynamin inhibitory peptide TFA blocks the dopamine D_3 effect on $GABA_A$ receptors.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DynaMin inhibitory peptide, myristoylated

Cat. No.: HY-P1369

DynaMin inhibitory peptide, myristoylated is a **DynaMin** inhibitor to interfere with the binding of amphiphysin with dynamin. DynaMin inhibitory peptide, myristoylated is a membrane-permeant form of the peptide that prevents endocytosis.

Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

DynaMin inhibitory peptide, myristoylated TFA

Cat. No.: HY-P1369A

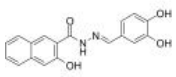
DynaMin inhibitory peptide, myristoylated TFA is a **DynaMin** inhibitor to interfere with the binding of amphiphysin with dynamin. DynaMin inhibitory peptide, myristoylated TFA is a membrane-permeant form of the peptide that prevents endocytosis.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Dynasore

Cat. No.: HY-15304

Dynasore is a cell-permeable **dynamin** inhibitor with an IC_{50} of 15 μM.

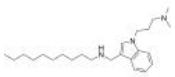


Purity: 98.70%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg

Dynole 2−24

Cat. No.: HY-145080

Dynole 2−24 is an indole-based **dynamin GTPase** inhibitor (IC_{50}=0.56 μM for dynamin I). Dynole 2−24 is nontoxic and shows increased potency against dynamin I and II in vitro and in cells ($IC_{50(CME)}$=1.9 μM). Dynole 2−24 also shows 4.4-fold selectivity for dynamin I.

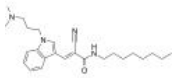


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Dynole 34-2

Cat. No.: HY-107545

Dynole 34-2 is a **dynamin GTPase** inhibitor (IC_{50}s=6.9 and 14.2 μM for dynamin1 and dynamin2 GTPase activity, respectively) with antimitotic effect. Dynole 34-2 induces apoptosis, as revealed by cell blebbing, DNA fragmentation, and PARP cleavage.



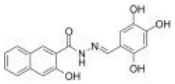
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Hydroxy-Dynasore

(Dyngo-4a)

Cat. No.: HY-13863

Hydroxy Dynasore (Dyngo-4a), a structural analog of Dynasore (HY-15304), is an potency improved, low cytotoxicity and nonspecific binding **dynamin** inhibitor with IC_{50} values of 0.38 μM and 2.3 μM for brain dynamin I and recombinant rat dynamin II, respectively.



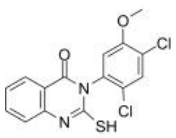
Purity: 98.08%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Mdivi-1

(Mitochondrial division inhibitor 1)

Cat. No.: HY-15886

Mdivi-1 is a selective dynamin-related protein 1 (**Drp1**) inhibitor. Mdivi-1 is a mitochondrial division/**mitophagy** inhibitor.

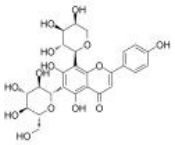


Purity: 99.73%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Schaftoside

Cat. No.: HY-N0703

Schaftoside is a flavonoid found in a variety of Chinese herbal medicines, such as Eleusine indica. Schaftoside inhibits the expression of TLR4 and Myd88. Schaftoside also decreases Drp1 expression and phosphorylation, and reduces mitochondrial fission.



Purity: 99.88%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 20 mg

Gap Junction Protein

Gap junction (GJ) channels span the plasma membranes of adjacent cells and are formed by the docking of two hemichannels (connexons) oligomerized from connexin (Cx) proteins, which consist of 21 distinct isoforms. GJs provide a direct pathway for cell-to-cell electrical signaling and metabolic communication, allowing the passage of small ions, amino acids, metabolites, tetraethylammonium and signaling molecules such as cAMP, IP3, siRNA and small peptide.

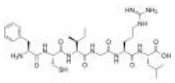
Gap junction channels provide the basis for intercellular communication in the cardiovascular system for maintenance of the normal cardiac rhythm, regulation of vascular tone and endothelial function as well as metabolic interchange between the cells. In the heart, GJs mediate electrical coupling between cardiac myocytes, forming the cell-to-cell pathways for orderly spread of the wave of electrical excitation responsible for synchronous contraction. Gap junctions also play an important role in the control of bladder contractile response and in the regulation of various immune inflammatory processes.

Gap Junction Protein Inhibitors & Modulators

AT-1002

Cat. No.: HY-114426

AT-1002, a 6-mer synthetic peptide, is a tight **junction** regulator and absorption enhancer.

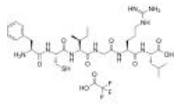


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

AT-1002 TFA

Cat. No.: HY-114426A

AT-1002 TFA, a 6-mer synthetic peptide, is a tight **junction** regulator and absorption enhancer.

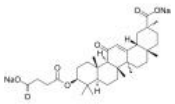


Purity: 99.72%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Carbenoxolone disodium

Cat. No.: HY-B1367

Carbenoxolone disodium is the active **metabolite** of Glycyrrhizic acid (HY-N0184) and the inhibitor of human **11β-HSD** and bacterial **3α, 20β-HSD**. Carbenoxolone disodium is an uncoupling agent for **gap junctions** and a potent inhibitor of Vaccinia virus replication.



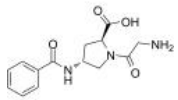
Purity: 99.88%
Clinical Data: Launched
Size: 10 mM × 1 mL, 25 mg, 50 mg, 100 mg

Danegaptide

(GAP-134; ZP 1609)

Cat. No.: HY-10913

Danegaptide (GAP-134) is a potent, selective and orally active **gap-junction** modifier with an antiarrhythmic effect.



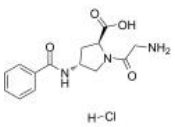
Purity: >98%
Clinical Data: Phase 2
Size: 1 mg, 5 mg

Danegaptide Hydrochloride

(GAP-134 Hydrochloride; ZP 1609 Hydrochloride)

Cat. No.: HY-10913A

Danegaptide Hydrochloride (GAP-134 Hydrochloride) is a potent, selective and orally active **gap-junction** modifier with an antiarrhythmic effect.



Purity: 99.75%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Gap 26

Cat. No.: HY-P1082

Gap 26 is a connexin mimetic peptide, composed of residue numbers 63-75 of the first extracellular loop of connexin 43 (gap junction blocker), containing the SHVR amino acid motif.

VCYDKSFPISHVR

Purity: 99.64%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Gap 26 TFA

Cat. No.: HY-P1082A

Gap 26 TFA is a connexin mimetic peptide, composed of residue numbers 63-75 of the first extracellular loop of connexin 43 (gap junction blocker), containing the SHVR amino acid motif.

VCYDKSFPISHVR (TFA Salt)

Purity: 99.03%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Gap 27

Cat. No.: HY-P0139

Gap 27, a synthetic connexin43 mimetic peptide, is a gap junction inhibitor. Gap 27 possesses conserved sequence homology to a portion of the second extracellular loop leading into the fourth transmembrane connexin segment.

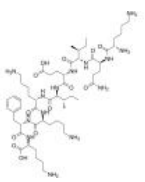
SRPTEKTIFII

Purity: 98.07%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Gap19

Cat. No.: HY-P1136

Gap19, a peptide derived from nine amino acids of the Cx43 cytoplasmic loop (CL), is a potent and selective **connexin 43 (Cx43) hemichannel** blocker. Gap19 inhibits hemichannels caused by preventing intramolecular interactions of the C-terminus (CT) with the CL.

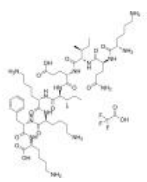


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Gap19 TFA

Cat. No.: HY-P1136A

Gap19 TFA, a peptide derived from nine amino acids of the Cx43 cytoplasmic loop (CL), is a potent and selective **connexin 43 (Cx43) hemichannel** blocker. Gap19 TFA inhibits hemichannels caused by preventing intramolecular interactions of the C-terminus (CT) with the CL.

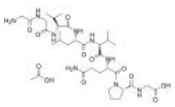


Purity: 95.11%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Larazotide acetate

Cat. No.: HY-106268A

Larazotide acetate is a synthetic peptide. Larazotide acetate acts as a tight **junction** regulator and reverses leaky junctions to their normally closed state.



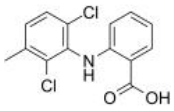
Purity: 99.68%
Clinical Data: Phase 3
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg

Meclofenamic acid

(Meclofenamate)

Cat. No.: HY-117275

Meclofenamic Acid (Meclofenamate), a non-steroidal, anti-inflammatory agent, is a highly selective **fat mass and obesity-associated (FTO) enzyme** inhibitor. Meclofenamic Acid competes with FTO binding for the m(6)A-containing nucleic acid.



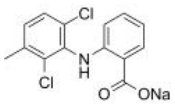
Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Meclofenamic acid sodium

(Meclofenamate sodium)

Cat. No.: HY-B1320

Meclofenamic acid (Meclofenamate) sodium is a nonsteroidal anti-inflammatory drug (NSAID) approved for use in arthritis (osteo and rheumatoid), analgesia (mild to moderate pain), dysmenorrhea, and heavy menstrual blood loss (menorrhagia).



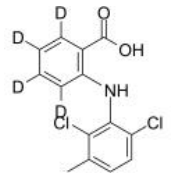
Purity: 99.86%
Clinical Data: Launched
Size: 10 mM × 1 mL, 50 mg, 100 mg, 200 mg

Meclofenamic acid-d4

(Meclofenamate-d4)

Cat. No.: HY-117275S

Meclofenamic acid-d4 (Meclofenamate-d4) is the deuterium labeled Meclofenamic acid. Meclofenamic Acid (Meclofenamate), a non-steroidal, anti-inflammatory agent, is a highly selective **fat mass and obesity-associated (FTO) enzyme** inhibitor.

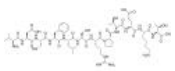


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 10 mg

Peptide5

Cat. No.: HY-P2275

Peptide5, a connexin 43 mimetic peptide, reduce animals swelling, astrogliosis, and neuronal cell death after spinal cord injury.



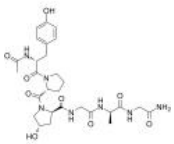
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Rotigaptide

(ZP123)

Cat. No.: HY-106225

Rotigaptide (ZP123) is a novel and specific modulator of **connexin 43 (Cx43)**. Rotigaptide prevents the uncoupling of Cx43-mediated **gap junction** communication and normalizes cell-to-cell communication during acute metabolic stress.



Purity: 99.63%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg

TAT-Gap19

Cat. No.: HY-P1136B

TAT-Gap19, a Cx mimetic peptide, is a specific **connexin43 hemichannel (Cx43 HC)** inhibitor. TAT-Gap19 does not inhibits the corresponding Cx43 GJCs. TAT-Gap19 traverses the blood-brain barrier and alleviate liver fibrosis in mice.

YGRKKRRQRRRKQIEIKKFK

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

TAT-Gap19 TFA

Cat. No.: HY-P1136C

TAT-Gap19 TFA, a Cx mimetic peptide, is a specific **connexin43 hemichannel (Cx43 HC)** inhibitor. TAT-Gap19 TFA does not inhibits the corresponding Cx43 GJCs. TAT-Gap19 TFA traverses the blood-brain barrier and alleviate liver fibrosis in mice.

YGRKKRRQRRRKQIEIKKFK (TFA salt)

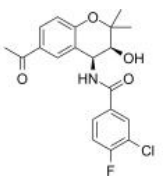
Purity: 98.36%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

Tonabersat

(SB-220453)

Cat. No.: HY-15204

Tonabersat (SB-220453) is a **gap-junction** modulator. Tonabersat prevents inflammatory damage in the central nervous system.



Purity: 98.36%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Integrin

Integrins, a family of heterodimeric adhesion receptors for diverse extracellular matrices, have consistently been implicated as crucial drivers of ovarian cancer development and progression. A number of the RGD-based members of the integrin family, including α5β1, and αvβ3 or αvβ5 integrins, are markedly elevated in aggressive ovarian tumors. These adhesion receptors appear to promote cell adhesion, survival, motility and invasion during ovarian tumor growth or metastatic progression. Importantly, the functions of these integrins are strongly dependent on the activation of focal adhesion kinase (FAK) and its downstream signaling, including the PI3K/Akt- and Ras/MAPK-dependent pathways.

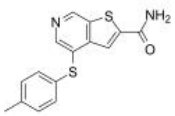
Integrins are transmembrane proteins and are major receptors for cell-extracellular matrix (ECM) and cell-cell adhesion. Modulation of these molecules, particularly αv integrin family, has exhibited profound effects on fibrosis in multiple organ and disease state. Based on the several studies, the integrins αvβ3, αvβ5, αvβ6, and αvβ8 have been known to modulate the fibrotic process via activation of latent transforming growth factor (TGF)-β in pre-clinical models of fibrosis.

Each integrin is typically formed by the non-covalent pairing of one α subunit, of which, 18 types are known to exist, and one β subunit, of which 8 types are known to exist. Together, 24 distinct heterodimers have been identified to date. The αv subunit can form heterodimers with the β1, β3, β5, β6 or β8 subunits and β1 can associate with many different α subunits from α1 to α11, and αv, indicating that not all theoretically possible α and subunit pairs form. Interestingly, the activation of TGF-β appears to be a common function of multiple αv integrins.

A-205804

Cat. No.: HY-100226

A-205804 is an orally bioavailable, potent and selective lead inhibitor of **E-selectin** and **ICAM-1** expression, with an IC_{50} of 20 nM and 25 nM for E-selectin and ICAM-1, respectively. A-205804 can be used in the research of chronic inflammatory diseases.

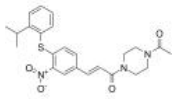


Purity: 98.12%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg

A-286982

Cat. No.: HY-107587

A-286982 is a potent and allosteric **LFA-1/ICAM-1 interaction** inhibitor with IC_{50}s of 44 nM and 35 nM in an LFA-1/ICAM-1 binding and LFA-1-mediated cellular adhesion assay, respectively.



Purity: 99.69%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg

Alicaforsen

(ISIS-2302)

Cat. No.: HY-145728

Alicaforsen is a 20-base antisense oligonucleotide inhibiting **ICAM-1** production, which is an important adhesion molecule involved in leukocyte migration and trafficking to the site of inflammation.

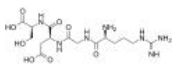
Purity: >98%
Clinical Data: Phase 3
Size: 1 mg, 5 mg

Arg-Gly-Asp-Ser

(RGDS peptide; Fibronectin tetrapeptide)

Cat. No.: HY-12290

Arg-Gly-Asp-Ser is an integrin binding sequence that inhibits **integrin receptor** function. Arg-Gly-Asp-Ser directly and specifically bind pro-caspase-8, pro-caspase-9 and pro-caspase-3, while it does not bind pro-caspase-1.



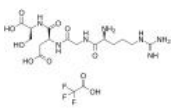
Purity: 99.76%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Arg-Gly-Asp-Ser (TFA)

(RGDS peptide (TFA); Fibronectin tetrapeptide (TFA))

Cat. No.: HY-12290A

Arg-Gly-Asp-Ser (TFA) is an integrin binding sequence that inhibits **integrin receptor** function. Arg-Gly-Asp-Ser (TFA) directly and specifically bind pro-caspase-8, pro-caspase-9 and pro-caspase-3, while it does not bind pro-caspase-1.

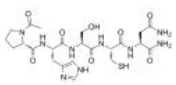


Purity: >98%
Clinical Data:
Size: 1 mg, 5 mg

ATN-161

Cat. No.: HY-13535

ATN-161 is a novel **integrin α5β1** antagonist, which inhibits angiogenesis and growth of liver metastases in a murine model.



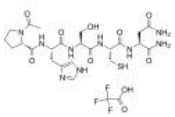
Purity: >98%
Clinical Data: Phase 2
Size: 1 mg, 5 mg

ATN-161 trifluoroacetate salt

(ATN-161 TFA salt)

Cat. No.: HY-13535A

ATN-161 trifluoroacetate salt is a novel **integrin α5β1** antagonist, which inhibits angiogenesis and growth of liver metastases in a murine model.

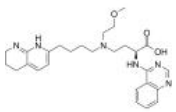


Purity: ≥95.0%
Clinical Data: Phase 2
Size: 5 mg, 10 mg, 50 mg, 100 mg

Bexotegrast

Cat. No.: HY-137561

Bexotegrast is a potent inhibitor of **αvβ6 integrin**. Bexotegrast can be used for researching fibrosis such as idiopathic pulmonary fibrosis (IPF) and nonspecific interstitial pneumonia (NSIP) (extracted from patent WO2020210404A1, compound 5).

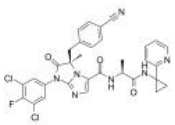


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

BI-1950

Cat. No.: HY-124040

BI-1950 is a highly potent **lymphocyte function associated antigen-1 (LFA-1)** inhibitor. LFA-1 is an essential component in normal immune system function and a target for drug discovery.

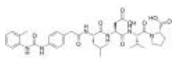


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

BIO-1211

Cat. No.: HY-14126

BIO-1211 is a highly selective and orally active **α4β1 (VLA-4)** inhibitor, with IC_{50} values of 4 nM and 2 μM for α4β1 and α4β7, respectively.

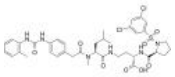


Purity: 99.64%
Clinical Data: No Development Reported
Size: 1 mg

BIO5192

Cat. No.: HY-107589

BIO5192 is a selective and potent integrin **α4β1** (VLA-4) inhibitor (K_d<10 pM). BIO5192 selectively binds to α4β1 (IC_{50}=1.8 nM) over a range of other integrins.

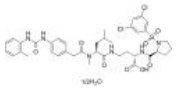


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

BIO5192 hydrate

Cat. No.: HY-107589A

BIO5192 hydrate is a selective and potent integrin **α4β1 (VLA-4)** inhibitor (K_d<10 pM). BIO5192 hydrate selectively binds to α4β1 (IC_{50}=1.8 nM) over a range of other integrins.

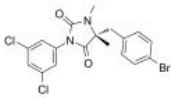


Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 1 mg

BIRT 377

Cat. No.: HY-110117

BIRT 377 is a potent amd orally bioavailable inhibitor of the interaction between intercellular adhesion molecule-1 (ICAM-1) and **lymphocyte function-associated antigen-1 (LFA-1)**, with a K_i of 25.8 nM. BIRT 377 also inhibits the production of IL-2 in vivo.

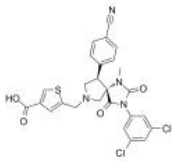


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

BMS-587101

Cat. No.: HY-120628

BMS-587101 is a potent and orally active antagonist of **leukocyte function associated antigen-1 (LFA-1)**. BMS-587101 has anti-inflammatory effects and can be used for rheumatoid arthritis research.

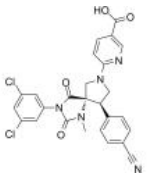


Purity: 98.67%
Clinical Data: Phase 2
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

BMS-688521

Cat. No.: HY-10596

BMS-688521 is a highly potent, orally active inhibitor of the **LFA-1/ICAM** interaction, with an IC_{50} of 2.5 nM in the adhesion assay and an IC_{50} of 60 nM in the MLR assay. BMS-688521 is efficacious in a mouse allergic eosinophilic lung inflammation model.

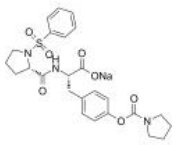


Purity: 98.72%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg

BOP sodium

Cat. No.: HY-129453

BOP sodium is a potent and selective dual **α9β1/α4β1 integrin** inhibitor with K_d values in the picomolar range. BOP sodium shows the rapid and preferential mobilization of hematopoietic stem cell (HSC) and progenitors.

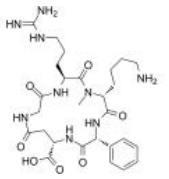


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

c(phg-isoDGR-(NMe)k)

Cat. No.: HY-111413

c(phg-isoDGR-(NMe)k) is a selective and potent **α5β1-integrin** ligand with an IC_{50} of 2.9 nM.

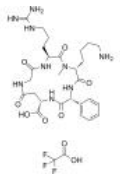


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

c(phg-isoDGR-(NMe)k) TFA

Cat. No.: HY-111413A

c(phg-isoDGR-(NMe)k) TFA is a selective and potent **α5β1-integrin** ligand with an IC_{50} of 2.9 nM.

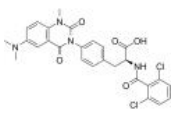


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Carotegrast

Cat. No.: HY-14857

Carotegrast is an orally available **α4 integrin receptor** inhibitor with anti-inflammatories activities.



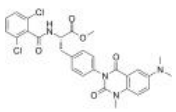
Purity: 98.14%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Carotegrast methyl

(AJM300)

Cat. No.: HY-124290

Carotegrast methyl (AJM300) is an orally active and selective **α4 integrin** antagonist. HCA2969, an active metabolite of Carotegrast methyl, is a specific and dual α4β1/α4β7 integrin antagonist. Carotegrast methyl prevents the development of colitis in mice.
.

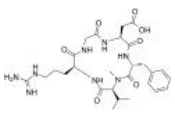


Purity: 99.72%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Cilengitide
(EMD 121974)

Cat. No.: HY-16141

Cilengitide (EMD 121974) is a potent and selective inhibitor of the **integrins $\alpha_v\beta_3$** and **$\alpha_v\beta_5$**. Cilengitide inhibits binding of isolated $\alpha_v\beta_3$ and $\alpha_v\beta_5$ to Vitronectin with an IC_{50} value of 4 and 79 nM, respectively .

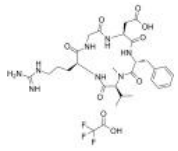


Purity: 99.32%
Clinical Data: Phase 3
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Cilengitide TFA
(EMD 121974 TFA)

Cat. No.: HY-16143

Cilengitide is a potent and selective **integrin** inhibitor for $\alpha_v\beta_3$ and $\alpha_v\beta_5$ receptor, with **IC_{50}** values of 4 nM and 79 nM, respectively.

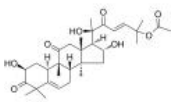


Purity: 98.85%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg

Cucurbitacin B

Cat. No.: HY-N0416

Cucurbitacin B belongs to a class of highly oxidized tetracyclic triterpenoids; could repress cancer cell progression.

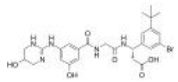


Purity: 99.92%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

CWHM-12

Cat. No.: HY-18644

CWHM-12 is a potent inhibitor of **αV integrins** with **IC_{50}**s of 0.2, 0.8, 1.5, and 1.8 nM for **αvβ8**, **αvβ3**, **αvβ6**, and **αvβ1**.

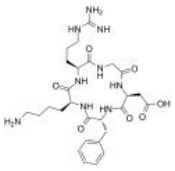


Purity: 99.65%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Cyclo(-RGDfK)

Cat. No.: HY-P0023

Cyclo(-RGDfK) is a potent and selective inhibitor of the **$\alpha_v\beta_3$** integrin, with an **IC_{50}** of 0.94 nM. Cyclo(-RGDfK) TFA potently targets tumor microvasculature and cancer cells through the specific binding to the αvβ3 integrin on the cell surface.

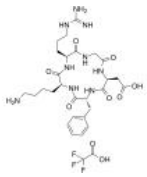


Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Cyclo(-RGDfK) TFA

Cat. No.: HY-P0023A

Cyclo(-RGDfK) TFA is a potent and selective inhibitor of the **$\alpha_v\beta_3$** integrin, with an **IC_{50}** of 0.94 nM. Cyclo(-RGDfK) TFA potently targets tumor microvasculature and cancer cells through the specific binding to the αvβ3 integrin on the cell surface.

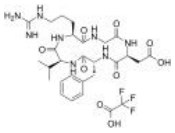


Purity: 99.81%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Cyclo(Arg-Gly-Asp-D-Phe-Val) TFA

Cat. No.: HY-P1613A

Cyclo(Arg-Gly-Asp-D-Phe-Val) (TFA) is an inhibitor of **integrin αvβ3**, with antitumor activity.

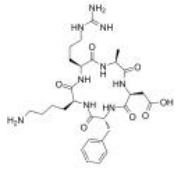


Purity: 99.40%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Cyclo(RADfK)

Cat. No.: HY-P0031

Cyclo(RADfK) is a selective α(v)β(3) integrin ligand that has been extensively used for research, therapy, and diagnosis of neoangiogenesis.

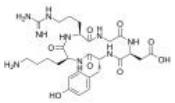


Purity: 98.03%
Clinical Data: No Development Reported
Size: 1 mg

Cyclo(RGDyK)

Cat. No.: HY-100563A

Cyclo(RGDyK) is a potent and selective **$\alpha_v\beta_3$ integrin** inhibitor with an **IC_{50}** of 20 nM.

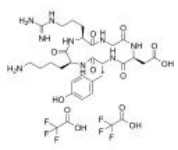


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Cyclo(RGDyK) trifluoroacetate

Cat. No.: HY-100563

Cyclo(RGDyK) trifluoroacetate is a potent and selective **$\alpha_v\beta_3$ integrin** inhibitor with an **IC_{50}** of 20 nM.



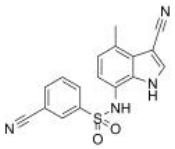
Purity: 99.92%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

E7820

(ER68203-00)

Cat. No.: HY-14571

E7820 (ER68203-00), an orally active aromatic sulfonamide derivative, is a unique **angiogenesis** inhibitor suppressing an expression of **integrin alpha2** subunit on endothelium. E7820 inhibits rat aorta angiogenesis with an IC_{50} of 0.11 μg/ml.



Purity: 99.25%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

Echistatin

Cat. No.: HY-P1189

Echistatin, the smallest active RGD protein belonging to the family of disintegrins that are derived from snake venoms, is a potent inhibitor of **platelet aggregation**. Echistatin is a potent inhibitor of **bone resorption** in culture.

Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

Echistatin TFA

Cat. No.: HY-P1189A

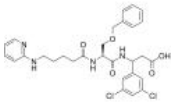
Echistatin TFA, the smallest active RGD protein belonging to the family of disintegrins that are derived from snake venoms, is a potent inhibitor of **platelet aggregation**. Echistatin is a potent inhibitor of **bone resorption** in culture.

Purity: 95.13%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

EMD527040

Cat. No.: HY-101473

EMD527040 is a potent and highly selective **αvβ6** antagonist with antifibrotic activities. EMD527040 can be used for carcinoma and liver fibrosis research.

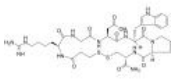


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Eptifibatide

Cat. No.: HY-B0686

Eptifibatide is a cyclic heptapeptide, acts as a competitive antagonist for the activated platelet **glycoprotein IIb/IIIa receptor**, with anti-platelet activity.

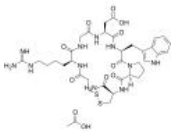


Purity: 99.91%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Eptifibatide acetate

Cat. No.: HY-B0686A

Eptifibatide acetate is a cyclic heptapeptide, acts as a competitive antagonist for the activated platelet **glycoprotein IIb/IIIa receptor**, with anti-platelet activity.

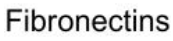


Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Fibronectin

Cat. No.: HY-P3160

Fibronectin, a glycoprotein (~500 kDa) present in blood as well as in cells, is a biomarker of tissue injury. Fibronectin binds to membrane-spanning receptor proteins called integrins.



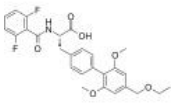
Purity: ≥95.0%
Clinical Data: No Development Reported
Size: 1 mg

Firategrast

(SB 683699)

Cat. No.: HY-14951

Firategrast (SB 683699) is an orally active and specific **α4β1/α4β7 integrin** antagonist. Firategrast reduces trafficking of lymphocytes into the central nervous system (CNS) and decreases multiple sclerosis (MS) activity.



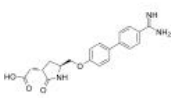
Purity: 99.88%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Fradafiban

(BIBU-52)

Cat. No.: HY-101720

Fradafiban is a nonpeptide platelet glycoprotein IIb/IIIa antagonist, which binds to the human platelet GP IIb/IIIa complex with a K_d value of 148 nM.

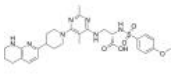


Purity: >98%
Clinical Data: Phase 1
Size: 1 mg, 5 mg

GLPG0187

Cat. No.: HY-100506

GLPG0187 is a broad spectrum **integrin** receptor antagonist with antitumor activity; inhibits $\alpha_V\beta_1$-integrin with an IC_{50} of 1.3 nM.

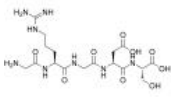


Purity: 99.78%
Clinical Data: Phase 1
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

Gly-Arg-Gly-Asp-Ser

Cat. No.: HY-P0295

Gly-Arg-Gly-Asp-Ser is a pentapeptide that forms the cell-binding domain of a glycoprotein, osteopontin. Gly-Arg-Gly-Asp-Ser binds to integrin receptors αvβ3 and αvβ5 with estimated IC_{50} of 5 and 6.5 μM.

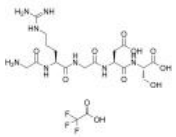


Purity: 95.05%
Clinical Data: No Development Reported
Size: 2 mg, 5 mg, 10 mg, 25 mg

Gly-Arg-Gly-Asp-Ser TFA

Cat. No.: HY-P0295A

Gly-Arg-Gly-Asp-Ser (TFA) is a pentapeptide that forms the cell-binding domain of a glycoprotein, osteopontin. Gly-Arg-Gly-Asp-Ser binds to **integrin receptors** αvβ3 and αvβ5 with estimated IC_{50} of 5 and 6.5 μM.

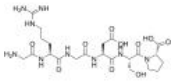


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

GRGDSP

Cat. No.: HY-P0290

GRGDSP, a synthetic linear RGD peptide, is an **integrin** inhibitor.

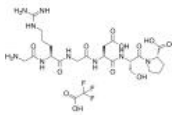


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

GRGDSP TFA

Cat. No.: HY-P0290A

GRGDSP (TFA) is an **integrin** inhibitor.

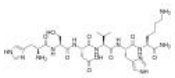


Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

HSDVHK-NH2

Cat. No.: HY-P1187

HSDVHK-NH2 is an antagonist of the **integrin αvβ3-vitronectin** interaction, with an IC_{50} of 1.74 pg/mL (2.414 pM).
.

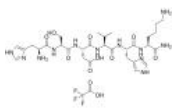


Purity: 99.63%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

HSDVHK-NH2 TFA

Cat. No.: HY-P1187A

HSDVHK-NH2 TFA is an antagonist of the **integrin αvβ3-vitronectin** interaction, with an IC_{50} of 1.74 pg/mL (2.414 pM).
.

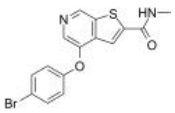


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

ICAM-1-IN-1

Cat. No.: HY-U00003

ICAM-1-IN-1 is a potent and selective inhibitor of **E-selectin** and **ICAM-1** with IC_{50} values of 7 and 5 nM, respectively.



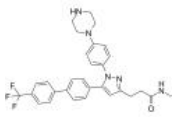
Purity: 99.94%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

ILK-IN-2

(OSU-T315 analog)

Cat. No.: HY-18676B

ILK-IN-2 (OSU-T315 analog) is a ILK inhibitor.

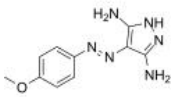


Purity: 99.41%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 2 mg, 5 mg, 50 mg

ILK-IN-3

Cat. No.: HY-115677

ILK-IN-3 is an **integrin linked kinase** inhibitor with antitumor activity.

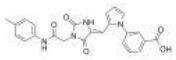


Purity: 99.57%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Integrin Antagonists 27

Cat. No.: HY-18668

Integrin Antagonists 27 is a small molecule integrin αvβ3 antagonist with binding affinity of 18 nM, as s novel anticancer agent.

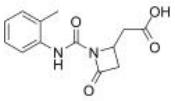


Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Integrin modulator 1

Cat. No.: HY-134130

Integrin modulator 1 is a potent and selective **α4β1 integrin** agonist, with an IC_{50} of 9.8 nM for RGD-binding α4β1. Integrin modulator 1 increases cell adhesion mediated by α4β1 integrin, with an EC_{50} of 12.9 nM.

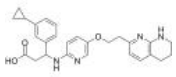


Purity: 99.43%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Integrin-IN-2

Cat. No.: HY-130119

Integrin-IN-2 (compound 39) is an orally bioavailable pan **αv integrin** inhibitor. Integrin-IN-2 can increases the **αvβ6**, **αvβ3**, **αvβ5** and **αvβ8** binding affinities with pIC_{50} values of 7.8, 8.4, 8.4 and 7.4, respectively.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

iRGD peptide

(c(CRGDKGPDC))

Cat. No.: HY-P0122

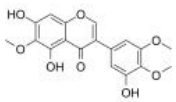
iRGD peptide is a 9-amino acid cyclic peptide, triggers tissue penetration of drugs by first binding to **av integrins**, then proteolytically cleaved in the tumor to produce CRGDK/R to interact with neuropilin-1, and has tumor-targeting and tumor-penetrating properties.

Purity: 99.03%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Irigenin

Cat. No.: HY-N2587

Irigenin is a is a lead compound, and mediates its anti-metastatic effect by specifically and selectively blocking **α9β1** and **α4β1** integrins binding sites on C-C loop of Extra Domain A (EDA). Irigenin shows anti-cancer properties.



Purity: 99.84%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 20 mg

LDV

Cat. No.: HY-P2267

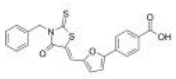
LDV, a tripeptide, is a non-fluorescent analog of LDV-FITC. LDV is a α4β1 integrin (VLA-4) ligand, and binds α4β1 integrin in leukemia cells.

Purity: >98%
Clinical Data: Phase 4
Size: 1 mg, 5 mg

Leukadherin-1

Cat. No.: HY-15701

Leukadherin-1, a specific agonist of the leukocyte surface integrin **CD11b/CD18**, increases CD11b/CD18-dependent cell adhesion to fibrinogen with an EC_{50} of 4 μM.



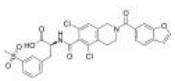
Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

Lifitegrast

(SAR 1118; SHP-606)

Cat. No.: HY-19344

Lifitegrast (SAR 1118) is an integrin lymphocyte function-associated antigen-1 (**LFA-1; αLβ2**) antagonist; inhibits Jurkat T cell attachment to **ICAM-1** with an IC_{50} of 2.98 nM.

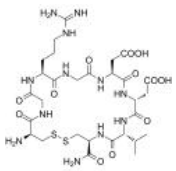


Purity: 99.58%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

LXW7

Cat. No.: HY-P0178

LXW7, a cyclic peptide containing Arg-Gly-Asp (RGD), is an **integrin αvβ3** inhibitor. LXW7 has a high binding affinity to **αvβ3 integrin** with an IC_{50} of 0.68 μM. LXW7 increases phosphorylation of VEGFR-2 and activation of ERK1/2. Anti-inflammatory effect.

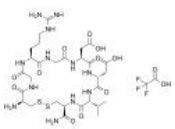


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

LXW7 TFA

Cat. No.: HY-P0178A

LXW7 TFA, a cyclic peptide containing Arg-Gly-Asp (RGD), is an **integrin αvβ3** inhibitor. LXW7 has a high binding affinity to **αvβ3 integrin** with an IC_{50} of 0.68 μM. LXW7 TFA increases phosphorylation of VEGFR-2 and activation of ERK1/2. Anti-inflammatory effect.



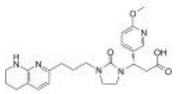
Purity: 99.17%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg

MK-0429

(L-000845704)

Cat. No.: HY-15102

MK-0429 (L-000845704) is an orally active, potent, selective and nonpeptide **pan-integrin** antagonist with IC_{50} values of 1.6 nM, 2.8 nM, 0.1 nM, 0.7 nM, 0.5 nM and 12.2 nM for αvβ1, αvβ3, αvβ5, αvβ6, αvβ8 and α5β1, respectively.



Purity: 99.84%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Natalizumab

Cat. No.: HY-108831

Natalizumab is a recombinant, humanized IgG4 monoclonal antibody, binds to α4β1-**integrin** and blocks its interaction with vascular cell adhesion molecule-1 (VCAM-1). Natalizumab can be used for the treatment of relapsing remitting multiple sclerosis and Crohn's disease.

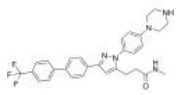
Natalizumab

Purity: 99.10%
Clinical Data: Launched
Size: 10 mg, 25 mg

OSU-T315

Cat. No.: HY-18676

OSU-T315 (ILK-IN-1) is a small Integrin-linked kinase **(ILK)** inhibitor with an IC_{50} of 0.6 μM, inhibiting PI3K/AKT signaling by dephosphorylation of AKT-Ser473 and other ILK targets (GSK-3β and myosin light chain).

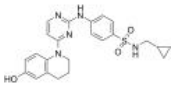


Purity: 99.88%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Pyrintegrin

Cat. No.: HY-13306

Pyrintegrin is an **β1-integrin** agonist and a 2,4-disubstituted pyrimidine that promotes embryonic stem cells survival. Pyrintegrin enhances cell-extracellular matrix (ECM) adhesion-mediated **integrin** signaling.

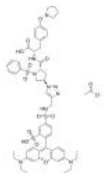


Purity: 97.04%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

R-BC154 acetate

Cat. No.: HY-136214

R-BC154 acetate is a selective fluorescent $\alpha_9\beta_1$ integrin antagonist. R-BC154 acetate acts as a useful high affinity, activation dependent integrin probe, which can be used to investigate α9β1 and α4β1 integrin binding activity.

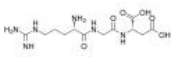


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

RGD

Cat. No.: HY-P0278

RGD is a tripeptide that effectively triggers cell adhesion, addresses certain cell lines and elicits specific cell responses; binds to **integrins**.

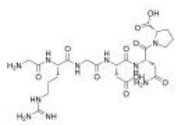


Purity: >98%
Clinical Data: Phase 2
Size: 1 mg, 5 mg

RGD peptide (GRGDNP)

Cat. No.: HY-P1740

RGD peptide (GRGDNP) acts as an inhibitor of integrin-ligand interactions and plays an important role in cell adhesion, migration, growth, and differentiation.

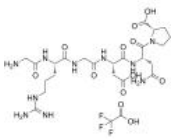


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

RGD peptide (GRGDNP) (TFA)

Cat. No.: HY-P1740A

RGD peptide (GRGDNP) (TFA) acts as an inhibitor of integrin-ligand interactions and plays an important role in cell adhesion, migration, growth, and differentiation.

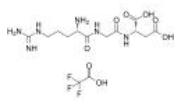


Purity: 99.25%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

RGD Trifluoroacetate

Cat. No.: HY-P0278A

RGD Trifluoroacetate is a tripeptide that effectively triggers cell adhesion, addresses certain cell lines and elicits specific cell responses; RGD Trifluoroacetate binds to **integrins**.

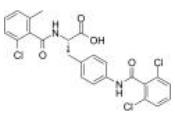


Purity: 99.29%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

RO0270608

Cat. No.: HY-138542

RO0270608, the active metabolite of R411, is a dual **alpha4beta1-alpha4beta7 (α4β1/α4β7)** integrin antagonist. Antiinflammatory activity.

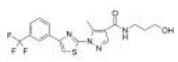


Purity: 98.69%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

RWJ 50271

Cat. No.: HY-110086

RWJ 50271 is an selective and orally active inhibitor of **lymphocyte function-associated antigen-1/intercellular adhesion molecule-1(LFA-1/ICAM-1)** interaction with an IC_{50} of 5.0 μM (HL60 cells). RWJ 50271 inhibits LFA-1/ICAM-1-mediated cell adhesion.

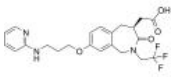


Purity: 99.51%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg

SB-267268

Cat. No.: HY-19306

SB-267268 is a selective and nonpeptidic **alpha(v)beta3 (αvβ3)** and **alpha(v)beta5 (αvβ5)** integrins antagonist, with K_is of 0.9, 0.5 and 0.7 nM for human αvβ3, monkey αvβ3 and human αvβ5, respectively.

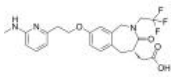


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

SB-273005

Cat. No.: HY-19307

SB-273005 is a potent nonpeptide and orally active **integrin** antagonist with K_is of 1.2 nM and 0.3 nM for αvβ3 receptor and αvβ5 receptor, respectively.



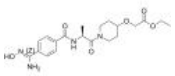
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Sibrafiban

(RO 48-3657)

Cat. No.: HY-10309

Sibrafiban (RO 48-3657) is the orally active, nonpeptide, double-prodrug of Ro 44-3888 and a selective **glycoprotein IIb/IIIa receptor** antagonist. Sibrafiban inhibits platelet aggregation.

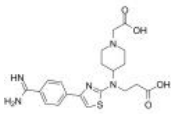


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg

SR121566A

Cat. No.: HY-U00235

SR121566A is a novel non-peptide **Glycoprotein IIb/IIIa** (**GP IIb-IIIa**) antagonist, which can inhibit ADP-, arachidonic acid- and collagen-induced human platelet aggregation with IC_{50}s of 46±7.5, 56±6 and 42±3 nM, respectively.

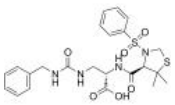


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

TC-I 15

Cat. No.: HY-107588

TC-I 15 (TC-I-15) is an allosteric, collagen-binding integrin **α2β1** inhibitor with IC_{50} values of 26.8 μM and 0.4 μM for GFOGER and GLOGEN, respectively. TC-I 15 inhibits platelet adhesion to collagen and thrombus deposition.

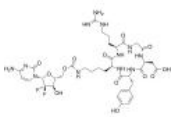


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

TC113

Cat. No.: HY-145314

TC113 is a c(RGDyK)-Based conjugate of Gemcitabine (GEM). TC113 could be internalized by A549 cells through integrin $\alpha_v\beta_3$. TC113 shows potent antiproliferative properties against WM266.4 and A549 cells.

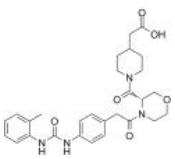


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

TCS 2314

Cat. No.: HY-12308

TCS 2314 (compound 3) is orally active and selective **very late antigen-4 (VLA-4, α4β1, CD49d/CD29)** antagonist with an IC_{50} of 4.4 nM.

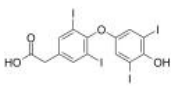


Purity: ≥99.0%
Clinical Data: No Development Reported
Size: 5 mg

Tetrac (Tetraiodothyroacetic acid; 3,3',5,5'-Tetraiodothyroacetic acid)

Cat. No.: HY-W008859

Tetrac (Tetraiodothyroacetic acid), a derivative of L-thyroxine (T4), is a **thyrointegrin receptor** antagonist. Tetrac blocks the actions of T4 and 3,5,3'-triiodo-L-thyronine (T3) at the cell surface receptor for thyroid hormone on **integrin αvβ3**.

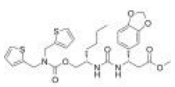


Purity: ≥95.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 25 mg

THI0019

Cat. No.: HY-117388

THI0019 is a potent **integrin α4β1 (VLA-4)** agonist with an EC_{50} range of 1-2 μM. THI0019 induces stem/progenitor cells adhesion. THI0019 also regulates adhesion mediated by α4β7, α5β1 and αLβ2.



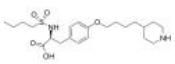
Purity: 98.31%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Tirofiban

(L700462; MK383)

Cat. No.: HY-17369B

Tirofiban(L700462;MK383) is a potent non-peptide, glycoprotein IIb/IIIa (integrins alphaIIbbetaIII) antagonist Target: integrin IIb/IIIa Tirofiban hydrochloride monohydrate blocks platelet aggregation and thrombus formation.

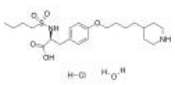


Purity: 98.37%
Clinical Data: Launched
Size: 5 mg, 10 mg, 50 mg, 100 mg

Tirofiban hydrochloride monohydrate

Cat. No.: HY-17369

Tirofiban hydrochloride monohydrate is a potent non-peptide, glycoprotein IIb/IIIa (integrins alphaIIbbetaIII) antagonist IC50 value: Target: integrin IIb/IIIa Tirofiban hydrochloride monohydrate blocks platelet aggregation and thrombus formation.

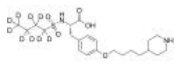


Purity: 99.34%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Tirofiban-d9

(L700462-d9; MK383-d9) Cat. No.: HY-17369BS

Tirofiban-d9 is deuterium labeled Tirofiban.

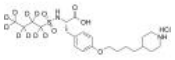


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Tirofiban-d9 hydrochloride

Cat. No.: HY-17369AS

Tirofiban-d9 (L700462-d9) hydrochloride is the deuterium labeled Tirofiban. Tirofiban(L700462) is a potent non-peptide, glycoprotein IIb/IIIa (integrins alphaIIbbetaIII) antagonist.

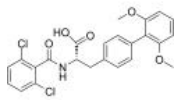


Purity: >98%
Clinical Data:
Size: 1 mg, 10 mg

TR-14035

Cat. No.: HY-15770

TR-14035 is a orally active dual $\alpha_4\beta_7/\alpha_4\beta_1$ **integrin** antagonist, with IC_{50} s of 7 nM and 87 nM for $\alpha_4\beta_7$ and $\alpha_4\beta_1$, respectively. TR-14035 can be used for the research of inflammation and autoimmune diseases.

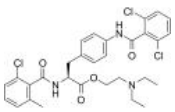


Purity: 95.81%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Valategrast

(R-411 free base) Cat. No.: HY-14190

Valategrast (R-411 free base) is a potent and orally active **integrin α4β1 (VLA-4)** and **α4β7** dual antagonist. Valategrast has the potential for Chronic obstructive pulmonary disease (COPD) and asthma treatment.

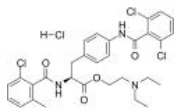


Purity: 98.57%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Valategrast hydrochloride

(R-411) Cat. No.: HY-14189

Valategrast hydrochloride (R-411) is a potent **integrin α4β1 (VLA-4)** and **α4β7** dual antagonist. Valategrast hydrochloride has the potential for Chronic obstructive pulmonary disease (COPD) and asthma treatment.



Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Vedolizumab

(Anti-Human lymphocyte α4β7 integrin, Humanized Antibody) Cat. No.: HY-P9911

Vedolizumab is a humanized IgG1 monoclonal antibody that targets the α4β7 **integrin** for the treatment of ulcerative colitis and Crohn's disease.

Vedolizumab

Purity: 99.64%
Clinical Data: Launched
Size: 1 mg, 5 mg, 25 mg, 50 mg

Vedolizumab (anti-α4β7-integrin)

Cat. No.: HY-P9911A

Vedolizumab (anti-α4β7-integrin) is a humanized IgG1 monoclonal antibody that targets the α4β7 **integrin** for the treatment of ulcerative colitis and Crohn's disease.

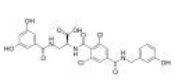
Vedolizumab (anti-$\alpha_4\beta_7$-integrin)

Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

XVA143

Cat. No.: HY-139202

XVA143, an α/β I-like allosteric antagonist, inhibits **LFA-1** dependent firm adhesion, while at the same time it enhances adhesion in shear flow and rolling both in vitro and in vivo.

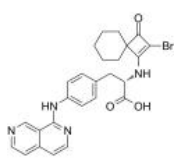


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Zauategrast

(CT7758) Cat. No.: HY-70073

Zauategrast (CT7758) is a potent and oral-effective α_4-**integrin** inhibitor.

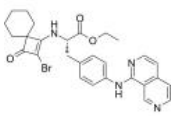


Purity: 98.03%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg

Zauategrast ethyl ester

(CDP323; UCB1184197) Cat. No.: HY-75385

Zauategrast ethyl ester (CDP323), the ethyl ester prodrug of CT7758, is a **α4β1/α4β7** integrin antagonist used for the treatment of inflammatory and autoimmune disorders.

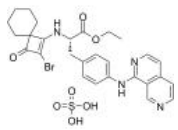


Purity: 99.06%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 10 mg, 25 mg, 50 mg, 100 mg

Zauategrast ethyl ester sulfate

(CDP323 sulfate; UCB1184197 sulfate) Cat. No.: HY-75385A

Zauategrast ethyl ester sulfate (CDP323 sulfate), the ethyl ester prodrug of CT7758, is a **α4β1/α4β7** integrin antagonist used for the treatment of inflammatory and autoimmune disorders.

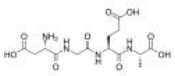


Purity: >98%
Clinical Data: Phase 2
Size: 1 mg, 5 mg

α2β1 Integrin Ligand Peptide

Cat. No.: HY-P1868

α2β1 Integrin Ligand Peptide interacts with the α2β1 integrin receptor on the cell membrane and mediates extracellular signals into cells. It is a potential antagonist of collagen receptors.

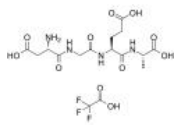


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

α2β1 Integrin Ligand Peptide TFA

Cat. No.: HY-P1868A

α2β1 Integrin Ligand Peptide TFA interacts with the α2β1 integrin receptor on the cell membrane and mediates extracellular signals into cells. It is a potential antagonist of collagen receptors.

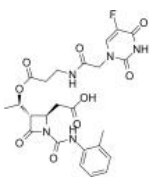


Purity: 99.33%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

α5β1 integrin agonist-1

Cat. No.: HY-139702

α5β1 integrin agonist-1, acting as **α5β1 integrin** agonist, is able to selectively deliver 5-FU into tumor cells, successfully leading to cancer cell death.

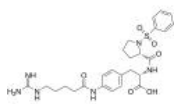


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

αvβ1 integrin-IN-1

Cat. No.: HY-100445

αvβ1 integrin-IN-1 (Compound C8) is a potent and selective **αvβ1 integrin** inhibitor with an IC_{50} of 0.63 nM. Antifibrotic effects.

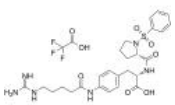


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg, 100 mg

αvβ1 integrin-IN-1 TFA

Cat. No.: HY-100445A

αvβ1 integrin-IN-1 TFA (Compound C8) is a potent and selective **αvβ1 integrin** inhibitor with an IC_{50} of 0.63 nM. Antifibrotic effects.

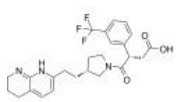


Purity: 98.30%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

αvβ5 integrin-IN-1

Cat. No.: HY-145363

αvβ5 integrin-IN-1 is a first potent and selective **αvβ5** integrin inhibitor (pIC_{50} = 8.2) .



Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Kinesin

Kinesins are a family of molecular motors that use the energy of ATP hydrolysis to move along the surface of, or destabilize, microtubule filaments. The kinesin motor protein family consists of 14 distinct subclasses and 45 kinesin proteins in humans. A large number of these proteins, or their orthologues, have been shown to possess essential function(s) in both the mitotic and the meiotic cell cycle. Kinesins also can be classified into three groups based on the position of their motor domains: N-terminal, C-terminal and internal kinesins. Conventional kinesin operates as a dimer, walking in a co-ordinated, hand-over-hand fashion along a microtubule protofilament.

Kinesins have important roles in chromosome separation, microtubule dynamics, spindle formation, cytokinesis and cell cycle progression. Roles of kinesins in diseases typically involve defective transport of cell components, transport of pathogens, or cell division.

Microtubule/Tubulin

Microtubules are a component of the cytoskeleton, found throughout the cytoplasm. These tubular polymers of tubulin can grow as long as 50 micrometres, with an average length of 25 μm, and are highly dynamic. The outer diameter of a microtubule is about 24 nm while the inner diameter is about 12 nm. Microtubules are found in eukaryotic cells and are formed by the polymerization of a dimer of two globular proteins, alpha and beta tubulin. Tubulin is one of several members of a small family of globular proteins. The tubulin superfamily includes five distinct families, the alpha-, beta-, gamma-, delta-, and epsilon-tubulins and a sixth family which is present only in kinetoplastid protozoa. The most common members of the tubulin family are α-tubulin and β-tubulin, the proteins that make up microtubules. Microtubules are very important in a number of cellular processes. They are involved in maintaining the structure of the cell.

Mps1

Monopolar spindle 1

Monopolar spindle 1 (Mps1/TTK) is a serine/threonine kinase conserved from yeast to human. It has been shown to function as the key kinase that activates the spindle assembly checkpoint (SAC) to secure proper distribution of chromosomes to daughter cells.

MPS1, a dual specificity protein kinase, is also one of the main components of the SAC and ensures cells do not progress from metaphase to anaphase until the kinetochores are properly attached to the microtubules and under the appropriate tension at the metaphase plate. Cancer cells heavily rely on MPS1 to cope with aneuploidy resulting from aberrant numbers of chromosomes. The kinase has been found to be upregulated in a large number of tumor types. Mps1 is an attractive oncology target due to its high expression level in cancer cells as well as the correlation of its expression levels with histological grades of cancers.

Myosin

Myosins are mechanoenzymes that interact with actin filaments and hydrolyse ATP to generate movement and force. This enables myosins to propel the sliding of actin filaments, to produce tension on actin filaments and to walk along these filaments. As a result, myosins can regulate the structure and dynamics of the actin cytoskeleton and affect the localization and transport of cellular components. The different myosins are grouped into classes on the basis of their motor domains. There are 35 known classes of myosin, and humans have 40 myosin genes that fall into 13 classes (I, II, III, V, VI, VII, IX, X, XV, XVI, XVIII, XIX and XXXV).

Myosins are actin-dependent motors that participate in a diverse range of crucial activities, including muscle contraction, intracellular trafficking, cell division, motility, actin cytoskeletal organisation and cell signaling. Myosin malfunction has been implicated in a variety of disorders including deafness, hypertrophic cardiomyopathy, Usher syndrome, Griscelli syndrome and cancer.

Myosin light chain kinase (MLCK) is an enzyme that activates the myosin light chain to exert its function related to cytoskeleton contraction and tight junction regulation. In most cells, MLCK is a transducer for signalling MLC phosphorylation in response to Ca^{2+} binding to MLCK-associated calmodulin. MLCK-mediated MLC phosphorylation and actomyosin contractility is important in muscle contraction, cell migration, and endo/exocytic processes, and is recognized for its central role in signalling endothelial cell-cell adhesion and barrier function.

(+)-Blebbistatin

Cat. No.: HY-107657

(+)-Blebbistatin is the inactive enantiomer of (–)-Blebbistatin. (–)-Blebbistatin is a selective inhibitor of myosin II ATPase.

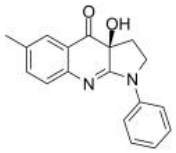
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

(-)-Blebbistatin

((S)-(-)-Blebbistatin)

Cat. No.: HY-13441

(-)-Blebbistatin is a selective inhibitor of the ATPase activity of non-muscle **myosin II**.



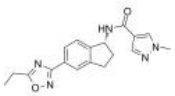
Purity: 99.42%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg

Aficamten

(CK-274; CK-3773274)

Cat. No.: HY-139465

Aficamten (CK-274) is a potent **cardiac myosin** inhibitor with an IC_{50} of 1.4 μM. Aficamten can be used for the research of hypertrophic cardiomyopathy (HCM).

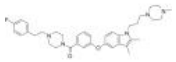


Purity: 99.86%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

ATM-3507

Cat. No.: HY-100948

ATM-3507 is a potent **tropomyosin** inhibitor with IC_{50}s from 3.83-6.84 μM in human melanoma cell lines.

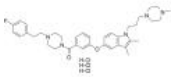


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

ATM-3507 trihydrochloride

Cat. No.: HY-100948B

ATM-3507 trihydrochloride is a potent **tropomyosin** inhibitor with IC_{50}s from 3.83-6.84 μM in human melanoma cell lines.

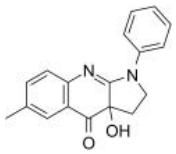


Purity: 98.10%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Blebbistatin

Cat. No.: HY-13813

Blebbistatin is a selective **non-muscle myosin II (NMII)** inhibitor, promotes directional migration of corneal endothelial cells (CECs) and accelerates wound healing, and better preserves cell junctional integrity and barrier function.



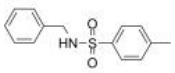
Purity: 99.64%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

BTS

(N-Benzyl-p-toluenesulfonamide; N-Tosylbenzylamine)

Cat. No.: HY-16690

BTS (N-Benzyl-p-toluenesulfonamide) is a potent and selective inhibitor of **skeletal muscle myosin II subfragment 1 (S1) ATPase** activity, with an IC_{50}s of ~5 μM for actin- and Ca^{2+}-stimulated myosin S1 ATPase. BTS specifically inhibits the contraction of fast skeletal muscle fibers.



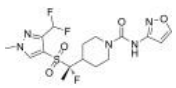
Purity: 99.51%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 500 mg

Danicamtiv

(MYK-491)

Cat. No.: HY-109128

Danicamtiv (MYK-491), an inotropic agent, is a selective allosteric activator of **cardiac myosin**. Danicamtiv increases cardiac systolic function and preserves mechanical efficiency.

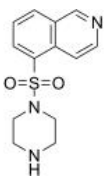


Purity: 99.49%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

HA-100

Cat. No.: HY-100984

HA-100 is a potent **protein kinase** inhibitor, with IC_{50}s of 4 μM, 8 μM, 12 μM and 240 μM for **cGMP-dependent protein kinase (PKG)**, **cAMP-dependent protein kinase (PKA)**, **protein kinase C (PKC)** and **MLC-kinase**, respectively. HA-100 also used as a **ROCK** inhibitor.

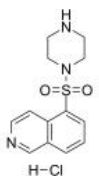


Purity: 99.77%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

HA-100 hydrochloride

Cat. No.: HY-100984A

HA-100 hydrochloride is a potent **protein kinase** inhibitor, with IC_{50}s of 4 μM, 8 μM, 12 μM and 240 μM for cGMP-dependent protein kinase (**PKG**), cAMP-dependent protein kinase (**PKA**), protein kinase C (**PKC**) and **MLC-kinase**, respectively.



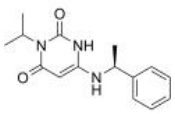
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Mavacamten

(MYK461; SAR439152)

Cat. No.: HY-109037

Mavacamten (MYK461) is an orally active modulator of **cardiac myosin**, with IC_{50}**s** of 490, 711 nM for bovine cardiac and human cardiac, respectively.

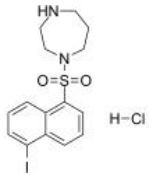


Purity: 99.90%
Clinical Data: Phase 3
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

ML-7 hydrochloride

Cat. No.: HY-15417

ML-7 hydrochloride is a naphthalene sulphonamide derivative, potently inhibits **MLCK** (IC_{50}=300 nM). ML-7 hydrochloride also inhibits **YAP/TAZ**.

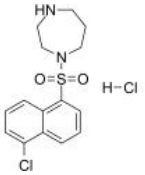


Purity: 99.75%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg

ML-9

Cat. No.: HY-100932

ML-9 is a selective and potent inhibitor of **Akt kinase**, inhibits myosin light-chain kinase (MLCK) and stromal interaction molecule 1 (STIM1) activity. ML-9 inhibits inhibits MLCK, PKA and PKC activity with K_i values of 4, 32 and 54 μM, respectively.

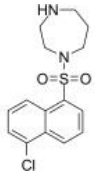


Purity: 99.89%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 25 mg, 50 mg, 100 mg, 250 mg

ML-9 Free Base

Cat. No.: HY-100932A

ML-9 (Free Base) is a selective and potent inhibitor of **Akt kinase**, inhibits myosin light-chain kinase (MLCK) and stromal interaction molecule 1 (STIM1) activity.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

MLCK inhibitor peptide 18

Cat. No.: HY-P1029

MLCK inhibitor peptide 18 is a myosin light chain kinase (**MLCK**) inhibitor with an IC_{50} of 50 nM, and inhibits **CaM kinase II** only at 4000-fold higher concentrations.

RKKYKYRRK-NH_2

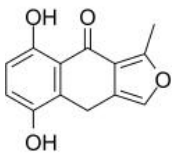
Purity: 99.66%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg, 25 mg

MS-444

(BE-34776)

Cat. No.: HY-100685

MS-444 inhibits the activity of purified smooth muscle myosin light chain kinase (**MLCK**) with an IC_{50} value of 10 μM.

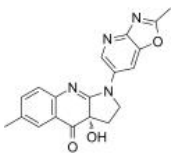


Purity: 99.42%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg

MT-134

Cat. No.: HY-141810

MT-134 is a **SkMII**-specific inhibitor and has excellent exposure in muscles.



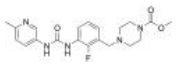
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Omecamtiv mecarbil

(CK-1827452)

Cat. No.: HY-14233

Omecamtiv mecarbil (CK-1827452) is a selective **cardiac myosin** activator.



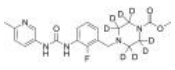
Purity: 98.89%
Clinical Data: Phase 3
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Omecamtiv mecarbil-d8

(CK-1827452-d8)

Cat. No.: HY-14233S

Omecamtiv mecarbil-d8 (CK-1827452-d8) is the deuterium labeled Omecamtiv mecarbil. Omecamtiv mecarbil (CK-1827452) is a selective **cardiac myosin** activator.

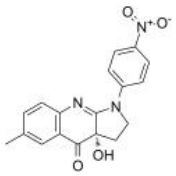


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

para-Nitroblebbistatin

Cat. No.: HY-120870

para-Nitroblebbistatin is a non-cytotoxic, photostable, fluorescent and specific **Myosin II** inhibitor, usd in the study of the specific role of myosin II in physiological, developmental, and cell biological studies.



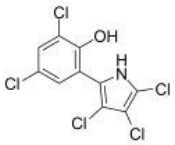
Purity: >98%
Clinical Data: No Development Reported
Size: 500 μg

Pentachloropseudilin

(Antibiotic A 15104 Y; PClP)

Cat. No.: HY-115669

Pentachloropseudilin (Antibiotic A 15104 Y; PClP) is a reversible and allosteric potent inhibitor of **Myo1s** (class 1 myosins) with IC_{50}s range from 1 to 5 μM for mammalian class-1 myosins and greater than 90 μM for class-2 and class-5 myosins.

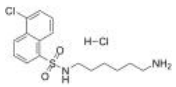


Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 5 mg

W-7 hydrochloride

Cat. No.: HY-100912

W-7 hydrochloride is a selective **calmodulin** antagonist. W-7 hydrochloride inhibits the **Ca^{2+}-calmodulin**-dependent **phosphodiesterase** and **myosin light chain kinase** with IC_{50} values of 28 μM and 51 μM, respectively. W-7 hydrochloride induces **apoptosis** and has antitumor activity.



Purity: 99.65%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 25 mg, 50 mg

PAK

p21 activated kinases

PAKs (p21-activated kinases) are a family of six serine/threonine kinases that act as key effectors of RHO family GTPases in mammalian cells. PAKs are subdivided into two groups: group I (PAK1, PAK2, and PAK3) and group II (PAK4, PAK5, and PAK6), based on their domain architecture and regulation. Group I PAKs are activated by GTPases such as Cdc42, Rac, TC10, CHP, and Wrch-1, as well as in a GTPase-independent manner. Group II PAKs are generally not activated by Cdc42/Rac binding. PAK plays important roles in cytoskeletal organization, cellular morphogenesis, and survival, and members of this family have been implicated in many diseases including cancer, infectious diseases, and neurological disorders.

PAKs participate in various signaling networks. PAKs activate the MAPK pathway by phosphorylating Raf1 in addition to NF-κB. PAKs also phosphorylate a number of regulators of the cytoskeleton such as MLCK, LIMK, filamin A, ILK, merlin, and Arpc1b. In addition, PAKs regulate survival and apoptotic pathways through phosphorylation of its effectors such as DLC1 and BimL. On translocation to the nucleus, PAKs directly affect gene transcription. Several transcription factors and transcriptional co-regulators such as FKHR, SHARP, CTBP1 and SNAI1 are substrates to PAK1. PAKs also regulate cell cycle progression through phosphorylation of histone H3, Aurora A and PlK1.

ROCK

Rho-associated protein kinase; Rho-associated kinase; Rho-kinase; ROK

ROCK (Rho-associated protein kinase) is a kinase belonging to the AGC (PKA/ PKG/PKC) family of serine-threonine kinases. ROCKs (ROCK1 and ROCK2) occur in mammals, zebrafish, Xenopus, invertebrates and chicken. Human ROCK1 has a molecular mass of 158 kDa and is a major downstream effector of the small GTPase RhoA. Mammalian ROCK consists of a kinase domain, acoiled-coil region and a Pleckstrin homology (PH) domain, which reduces the kinase activity of ROCKs by an autoinhibitory intramolecular fold if RhoA-GTP is not present. ROCK plays a role in a wide range of different cellular phenomena, as ROCK is a downstream effector protein of the small GTPase Rho, which is one of the major regulators of the cytoskeleton.