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Inhibitors, Screening Libraries, Proteins

HIV Protease

HIV protease, a homodimeric aspartyl protease, is crucial for the viral life-cycle, cleaving proviral polyproteins, hence creating mature protein components that are required for the formation of an infectious virus. HIV protease cleaves newly synthesized polyproteins at the appropriate places to create the mature protein components of an infectious HIV virion. HIV protease is a critical drug target in designing anti-retroviral drugs to treat HIV/AIDS (acquired immune deficiency syndrome).

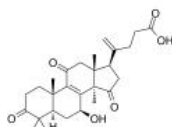
HIV-1 protease permits viral maturation by processing the Gag and Gag-Pro-Pol polyproteins. It recognizes and cleaves more than 12 different substrates leading to viral maturation. Similar to that of HIV-1, HIV-2 protease is also a homodimeric aspartyl enzyme that plays a vital role in the HIV life-cycle through processing of Gag and Gag-Pro-Pol precursor polyproteins leading to viral maturation.

HIV Protease Inhibitors

20(21)-Dehydrolucidinic acid A

Cat. No.: HY-N3502

20(21)-Dehydrolucidinic acid A is a triterpenoid isolated from the fruiting body of the fungus *Ganoderma sinense*. 20(21)-Dehydrolucidinic acid A has weak **anti-HIV-1 protease** activity.



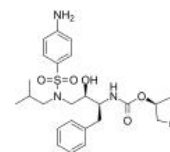
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

Amprenavir

(VX-478)

Cat. No.: HY-17430

Amprenavir (VX-478) is a HIV protease inhibitor ($K_i=0.6$ nM) used to treat HIV infection. Amprenavir is also a **SARS-CoV 3CL^{pro}** inhibitor with an IC_{50} of 1.09 μ M.

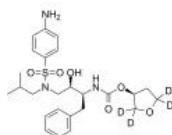


Purity: 99.58%
Clinical Data: Launched
Size: 10 mM \times 1 mL, 5 mg, 25 mg, 50 mg

Amprenavir-d4

Cat. No.: HY-17430S

Amprenavir-d4 is the deuterium labeled Amprenavir. Amprenavir (VX-478) is a HIV protease inhibitor ($K_i=0.6$ nM) used to treat HIV infection. Amprenavir is also a **SARS-CoV 3CL^{pro}** inhibitor with an IC_{50} of 1.09 μ M.



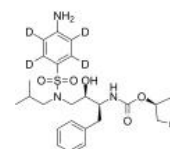
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 10 mg

Amprenavir-d4-1

(VX-478-d4-1)

Cat. No.: HY-17430S1

Amprenavir-d4-1 is deuterium labeled Amprenavir. Amprenavir (VX-478) is a HIV protease inhibitor ($K_i=0.6$ nM) used to treat HIV infection. Amprenavir is also a **SARS-CoV 3CL^{pro}** inhibitor with an IC_{50} of 1.09 μ M.



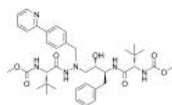
Purity: >98%
Clinical Data:
Size: 1 mg, 5 mg

Atazanavir

(BMS-232632)

Cat. No.: HY-17367

Atazanavir (BMS-232632), a highly selective **HIV-1 protease** inhibitor, is the first protease inhibitor approved for once-daily administration. Atazanavir (BMS-232632) is a substrate and inhibitor of **CYP3A4**, and an inhibitor and inducer of **P-glycoprotein (P-gp)**.



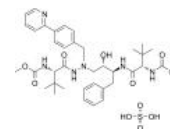
Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Atazanavir sulfate

(BMS-232632 sulfate)

Cat. No.: HY-17367A

Atazanavir (BMS-232632) sulfate, a highly selective **HIV-1 protease** inhibitor, is the first protease inhibitor approved for once-daily administration. Atazanavir sulfate is a substrate and inhibitor of **CYP3A4**, and an inhibitor and inducer of **P-glycoprotein (P-gp)**.

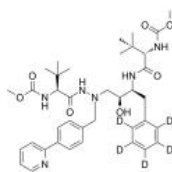


Purity: 99.94%
Clinical Data: Launched
Size: 10 mM \times 1 mL, 10 mg, 50 mg, 100 mg

Atazanavir-d5

Cat. No.: HY-17367S3

Atazanavir-d5 is the deuterium labeled Atazanavir. Atazanavir (BMS-232632), a highly selective **HIV-1 protease** inhibitor, is the first protease inhibitor approved for once-daily administration.



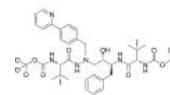
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 10 mg

Atazanavir-d6

(BMS-232632-d6)

Cat. No.: HY-17367S4

Atazanavir-d6 is deuterium labeled Atazanavir. Atazanavir (BMS-232632), a highly selective **HIV-1 protease** inhibitor, is the first protease inhibitor approved for once-daily administration.



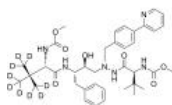
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Atazanavir-d9

(BMS-232632-d9)

Cat. No.: HY-17367S2

Atazanavir-d9 (BMS-232632-d9) is the deuterium labeled Atazanavir. Atazanavir (BMS-232632), a highly selective **HIV-1 protease** inhibitor, is the first protease inhibitor approved for once-daily administration.



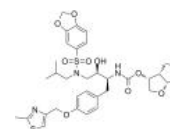
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Breacanavir

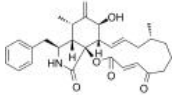
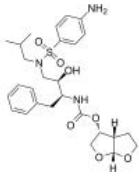
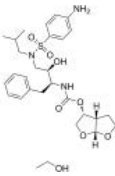
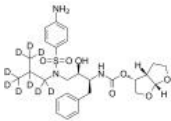
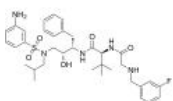
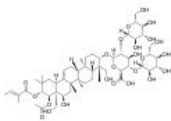
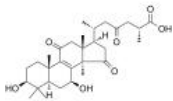
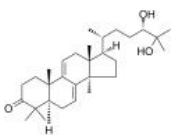


(GW640385)

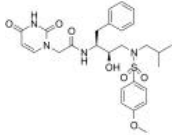
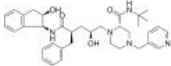
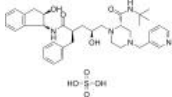
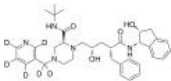
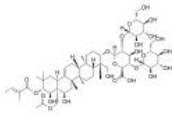
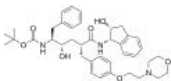
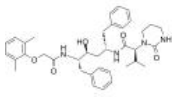
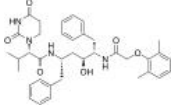
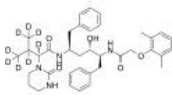
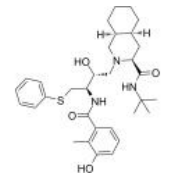
Cat. No.: HY-121240

Breacanavir (GW640385) is a novel, potent **HIV protease** inhibitor.



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

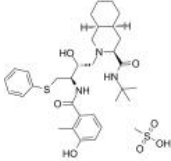
<p>Cytochalasin A</p> <p>Cat. No.: HY-N6773</p> <p>Cytochalasin A is a cell-permeable fungal toxin that is an oxidized derivative of cytochalasin B. Cytochalasin A is an inhibitor of HIV-1 protease (IC_{50} = 3 μM) and inhibits actin polymerization and interferes with microtubule assembly by reacting with sulfhydryl groups.</p> <p>Purity: 99.02% Clinical Data: No Development Reported Size: 5 mg, 10 mg</p> 	<p>Darunavir (TMC114; UIC-94017)</p> <p>Cat. No.: HY-17040</p> <p>Darunavir (TMC114), an orally active next generation HIV protease inhibitor, has a similar antiviral activity against the mutant and the wild-type viruses.</p> <p>Purity: 99.84% Clinical Data: Launched Size: 10 mM \times 1 mL, 5 mg, 10 mg, 50 mg</p> 
<p>Darunavir Ethanolate (TMC114 Ethanolate)</p> <p>Cat. No.: HY-17041</p> <p>Darunavir ethanolate (TMC114 Ethanolate) is a potent HIV protease inhibitor used to treat and prevent HIV/AIDS. Darunavir has a K_i of 1 nM for wild type HIV-1 protease.</p> <p>Purity: 99.81% Clinical Data: Launched Size: 10 mM \times 1 mL, 5 mg, 10 mg, 50 mg, 100 mg</p> 	<p>Darunavir-d9 (TMC114-d9; UIC-94017-d9)</p> <p>Cat. No.: HY-112585</p> <p>Darunavir-d9 (TMC114-d9) is the deuterium labeled Darunavir. Darunavir (TMC114), an orally active next generation HIV protease inhibitor, has a similar antiviral activity against the mutant and the wild-type viruses.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 10 mg</p> 
<p>DPC-681 (DPH-153893)</p> <p>Cat. No.: HY-19400</p> <p>DPC-681 is a potent and selective inhibitor of HIV protease with IC_{90}s for wild-type HIV-1 of 4 to 40 nM. IC_{50} value: 4 - 40 nM Target: HIV protease in vitro: DPC 681 is extremely potent inhibitor of wild-type HIV-1.</p> <p>Purity: 99.89% Clinical Data: No Development Reported Size: 1 mg, 5 mg, 10 mg, 25 mg, 50 mg</p> 	<p>Escin IA</p> <p>Cat. No.: HY-N0554</p> <p>Escin IA is a triterpene saponin isolated from horse chestnut, which inhibits HIV-1 protease with IC_{50} values of 35 μM.</p> <p>Purity: 99.74% Clinical Data: No Development Reported Size: 10 mM \times 1 mL, 5 mg, 10 mg</p> 
<p>Ganoderic acid B</p> <p>Cat. No.: HY-N2006</p> <p>Ganoderic acid B is a triterpene isolated from a mushroom <i>Ganoderma lucidum</i>. Ganoderic acid B inhibits the activation of Epstein-Barr virus (EBV) antigens as telomerase inhibitor. Ganoderic acid B is a moderately active inhibitor against HIV-1 protease.</p> <p>Purity: 99.31% Clinical Data: No Development Reported Size: 1 mg, 5 mg</p> 	<p>Ganodermanondiol</p> <p>Cat. No.: HY-N2996</p> <p>Ganodermanondiol is a melanogenesis inhibitor isolated from the <i>Ganoderma lucidum</i>. Ganodermanondiol exhibits potent cytoprotective effects on tert-butyl hydroperoxide-induced hepatotoxicity.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 5 mg</p> 
<p>HIV Protease Substrate 1</p> <p>Cat. No.: HY-P2344</p> <p>HIV Protease Substrate 1, a fluorogenic HIV protease substrate, can be used to study enzymatic activity of HIV protease.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg</p> 	<p>HIV Protease Substrate 1 TFA</p> <p>Cat. No.: HY-P2344A</p> <p>HIV Protease Substrate 1 TFA, a fluorogenic HIV protease substrate, can be used to study enzymatic activity of HIV protease.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg</p> 

<p>HIV-1 protease-IN-2</p> <p>Cat. No.: HY-146888</p> <p>HIV-1 protease-IN-2 is a potent HIV-1 protease inhibitor with an IC_{50} of 2.53 nM. HIV-1 protease-IN-2 shows antiviral activity against DRV (Darunavir)-sensitive or DRV-resistant HIV-1 variants.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg</p> 	<p>Indinavir (MK-639; L-735524)</p> <p>Cat. No.: HY-B0689</p> <p>Indinavir(MK-639; L735524) is a potent and specific HIV protease inhibitor that appears to have good oral bioavailability.</p> <p>Purity: >98% Clinical Data: Launched Size: 1 mg, 5 mg</p> 
<p>Indinavir sulfate (MK-639 sulfate; L735524 sulfate)</p> <p>Cat. No.: HY-B0689A</p> <p>Indinavir sulfate(MK-639 sulfate; L735524 sulfate) is a potent and specific HIV protease inhibitor that appears to have good oral bioavailability. Indinavir sulfate is also a SARS-CoV 3CL^{pro} inhibitor with an IC_{50} of 1.71 μM.</p> <p>Purity: 99.82% Clinical Data: Launched Size: 10 mM \times 1 mL, 50 mg, 100 mg</p> 	<p>Indinavir-d6</p> <p>Cat. No.: HY-B0689S</p> <p>Indinavir-d6 is the deuterium labeled Indinavir. Indinavir (MK-639; L735524) is a potent and specific HIV protease inhibitor that appears to have good oral bioavailability.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 10 mg</p> 
<p>Isoescsin IA</p> <p>Cat. No.: HY-N0556</p> <p>Isoescsin IA is a triterpenoid saponin isolated from the seeds of Aesculus chinensis. Isoescsin IA has anti-HIV-1 protease activity.</p> <p>Purity: 98.89% Clinical Data: No Development Reported Size: 5 mg</p> 	<p>L-689502</p> <p>Cat. No.: HY-U00261</p> <p>L-689502 is a potent inhibitor of HIV-1 protease with an IC_{50} of 1 nM.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg</p> 
<p>Lopinavir (ABT-378)</p> <p>Cat. No.: HY-14588</p> <p>Lopinavir (ABT-378) is a highly potent, selective peptidomimetic inhibitor of the HIV-1 protease, with K_is of 1.3 to 3.6 pM for wild-type and mutant HIV protease. Lopinavir acts by arresting maturation of HIV-1 thereby blocking its infectivity.</p> <p>Purity: 99.93% Clinical Data: Launched Size: 10 mM \times 1 mL, 50 mg, 100 mg, 250 mg</p> 	<p>Lopinavir Metabolite M-1</p> <p>Cat. No.: HY-136703</p> <p>Lopinavir Metabolite M-1, an active metabolite of Lopinavir, inhibits HIV protease with a K_i of 0.7 pM. Lopinavir Metabolite M-1 has antiviral activities in vitro.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg</p> 
<p>Lopinavir-d8</p> <p>Cat. No.: HY-14588S1</p> <p>Lopinavir-d8 (ABT-378-d8) is the deuterium labeled Lopinavir. Lopinavir (ABT-378) is a highly potent, selective peptidomimetic inhibitor of the HIV-1 protease, with K_is of 1.3 to 3.6 pM for wild-type and mutant HIV protease.</p> <p>Purity: >98% Clinical Data: No Development Reported Size: 1 mg</p> 	<p>Nelfinavir (AG1341)</p> <p>Cat. No.: HY-15287</p> <p>Nelfinavir (AG-1341) is a potent and orally bioavailable HIV-1 protease inhibitor ($K_i=2$ nM) for HIV infection. Nelfinavir is a broad-spectrum, anticancer agent.</p> <p>Purity: 96.90% Clinical Data: Launched Size: 10 mM \times 1 mL, 5 mg, 10 mg, 50 mg</p> 

Nelfinavir Mesylate
(AG 1343 Mesylate)

Cat. No.: HY-15287A

Nelfinavir Mesylate (AG 1343 Mesylate) is a potent and orally bioavailable **HIV-1 protease** inhibitor ($K_i=2$ nM) for HIV infection. Nelfinavir Mesylate (AG 1343 Mesylate) is a broad-spectrum, anticancer agent.

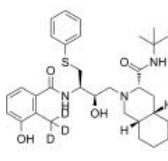


Purity: 99.07%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

Nelfinavir-d3

Cat. No.: HY-15287S

Nelfinavir-d3 (AG1341-d3) is the deuterium labeled Nelfinavir. Nelfinavir (AG-1341) is a potent and orally bioavailable **HIV-1 protease** inhibitor ($K_i=2$ nM) for HIV infection. Nelfinavir is a broad-spectrum, anticancer agent.

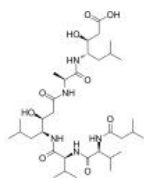


Purity: >98%
Clinical Data:
Size: 1 mg, 10 mg

Pepstatin
(Pepstatin A)

Cat. No.: HY-P0018

Pepstatin (Pepstatin A) is a specific **aspartic protease** inhibitor produced by actinomycetes, with IC_{50} s of 4.5 nM, 6.2 nM, 150 nM, 290 nM, 520 nM and 260 nM for hemoglobin-pepsin, hemoglobin-proctase, casein-pepsin, casein-proctase, casein-acid protease...

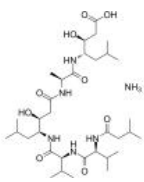


Purity: 98.28%
Clinical Data: No Development Reported
Size: 10 mg, 50 mg

Pepstatin Ammonium
(Pepstatin A Ammonium)

Cat. No.: HY-P0018B

Pepstatin Ammonium is a specific **aspartic protease** inhibitor produced by actinomycetes, with IC_{50} s of 4.5 nM, 6.2 nM, 150 nM, 290 nM, 520 nM and 260 nM for hemoglobin-pepsin, hemoglobin-proctase, casein-pepsin, casein-proctase, casein-acid protease and hemoglobin-acid...

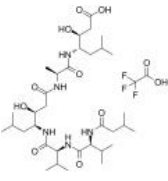


Purity: 99.76%
Clinical Data: No Development Reported
Size: 10 mg, 25 mg, 50 mg

Pepstatin Trifluoroacetate
(Pepstatin A Trifluoroacetate)

Cat. No.: HY-P0018A

Pepstatin Trifluoroacetate (Pepstatin A Trifluoroacetate) is a specific **aspartic protease** inhibitor produced by actinomycetes, with IC_{50} s of 4.5 nM, 6.2 nM, 150 nM, 290 nM, 520 nM and 260 nM for hemoglobin-pepsin, hemoglobin-proctase, casein-pepsin, casein-proctase,...

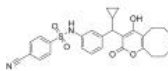


Purity: 99.11%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg

PNU-103017

Cat. No.: HY-19236

PNU-103017 is an **HIV protease** inhibitor.

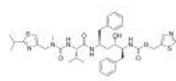


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Ritonavir
(ABT 538; RTV)

Cat. No.: HY-90001

Ritonavir (ABT 538) is an inhibitor of **HIV protease** used to treat HIV infection and AIDS. Ritonavir is also a **SARS-CoV 3CL^{pro}** inhibitor with an IC_{50} of 1.61 μ M.

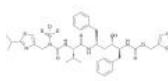


Purity: 99.95%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 500 mg

Ritonavir-13C,d3
(ABT 538-13C,d3; RTV-13C,d3)

Cat. No.: HY-90001S1

Ritonavir-13C,d3 (ABT 538-13C,d3) is the 13C- and deuterium labeled Ritonavir. Ritonavir (ABT 538) is an inhibitor of **HIV protease** used to treat HIV infection and AIDS. Ritonavir is also a **SARS-CoV 3CL^{pro}** inhibitor with an IC_{50} of 1.61 μ M.

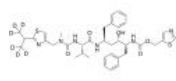


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Ritonavir-d6

Cat. No.: HY-90001S

Ritonavir-d6 (ABT 538-d6) is the deuterium labeled Ritonavir. Ritonavir (ABT 538) is an inhibitor of **HIV protease** used to treat HIV infection and AIDS. Ritonavir is also a **SARS-CoV 3CL^{pro}** inhibitor with an IC_{50} of 1.61 μ M.

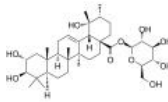


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Rosamultin

Cat. No.: HY-N2565

Rosamultin is a 19 α -hydroxyursane-type triterpenoid isolated from *Potentilla anserina* L. Rosamultin has inhibitory effects against **HIV-1 protease**.

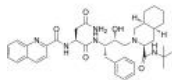


Purity: 99.00%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

Saquinavir (Ro 31-8959)

Cat. No.: HY-17007

Saquinavir(Ro 31-8959) is an HIV Protease inhibitor used in antiretroviral therapy. Saquinavir is also a SARS-CoV 3CL^{pro} inhibitor with an IC₅₀ of 1.36 μM.

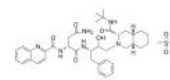


Purity: 99.34%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Saquinavir Mesylate (Ro 31-8959/003)

Cat. No.: HY-17003

Saquinavir mesylate is an HIV Protease Inhibitor used in antiretroviral therapy. IC₅₀ Value: Target: HIV Protease Saquinavir is a protease inhibitor. Proteases are enzymes that cleave protein molecules into smaller fragments.

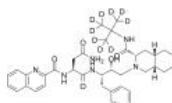


Purity: 99.89%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Saquinavir-d9

Cat. No.: HY-17007S

Saquinavir-d9 (Ro 31-8959-d9) is the deuterium labeled Saquinavir. Saquinavir(Ro 31-8959) is an HIV Protease inhibitor used in antiretroviral therapy. Saquinavir is also a SARS-CoV 3CL^{pro} inhibitor with an IC₅₀ of 1.36 μM.

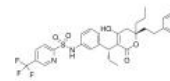


Purity: >98%
Clinical Data:
Size: 1 mg, 10 mg

Tipranavir (PNU-140690)

Cat. No.: HY-15148

Tipranavir (PNU-140690) inhibits the enzymatic activity and dimerization of HIV-1 protease, exerts potent activity against multi-protease inhibitor (PI)-resistant HIV-1 isolates with IC₅₀s of 66-410 nM. Tipranavir inhibits SARS-CoV-2 3CL^{pro} activity.

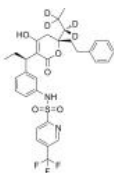


Purity: 98.08%
Clinical Data: Launched
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg

Tipranavir-d4

Cat. No.: HY-15148S

Tipranavir-d4 (PNU-140690-d4) is the deuterium labeled Tipranavir. Tipranavir (PNU-140690) inhibits the enzymatic activity and dimerization of HIV-1 protease, exerts potent activity against multi-protease inhibitor (PI)-resistant HIV-1 isolates with IC₅₀s of 66-410 nM.

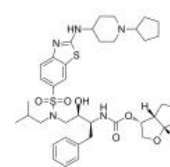


Purity: >98%
Clinical Data:
Size: 1 mg, 10 mg

TMC310911

Cat. No.: HY-107123

TMC310911 is a potent and orally active HIV type-1 (HIV-1) protease inhibitor with EC₅₀ values ranged from 2.2 nM to 14.2 nM for wild-type HIV-1. TMC310911 has potent activity against a wide spectrum of recombinant HIV-1 isolates. TMC310911 has strong antiviral activity.



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