

# **Neurotensin Receptor**

The neuropeptide neurotensin (NT) exerts central actionsthat include hypothermia, analgesia, and a number of effects that involve the modulation of nigrostriatal and mesocortico-limbic dopaminergic pathways. The two neurotensin receptor subtypes known to date, NTR1 and NTR2, belong to the family of G-protein-coupled receptors with seven putative transmembrane domains (TM). The NTR1 has high affinity for neurotensin, whereas the NTR2 has lower affinity for the peptide and is selectively recognized by levocabastine, an anti-histamine H1 receptor antagonist. These receptors have widespread, though not identical, central and peripheral distributions and exhibit distinct ontogenic profiles.

It is notably reported that NTR1 activation results in significant antinociception but also causes marked hypotension and hypothermia. In sharp contrast, NTR2 has emerged as an important pain target because NTR2-selective analogues exhibit potent analgesic activity in both acute and chronic pain conditions in dose-dependent analgesic effects without inducing drop in blood pressure or body temperature.

### Neurotensin Receptor Agonists, Inhibitors, Antagonists, Modulators & Activators

### AF38469

Cat. No.: HY-12802

AF38469 is a selective, orally bioavailable Sortilin inhibitor with an  ${\rm IC}_{\rm 50}$  value of 330 nM.

Purity: 99.28%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

#### AF40431

AF40431, the first reported small-molecule ligand of sortilin, has an  $IC_{so}$  of 4.4  $\mu$ M and a  $K_d$  of 0.7  $\mu$ M . AF40431 is bound in the neurotensin-binding site of sortilin.

**Purity:** 99.17%

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



Cat. No.: HY-124673

### JMV 449

Cat. No.: HY-P1256

JMV 449 is a potent **neurotensin receptor** agonist. JMV 449 shows an  $\rm IC_{50}$  of 0.15 nM for inhibition of [ $^{125}$ I]-neurotensin binding to neonatal mouse brain and an  $\rm EC_{50}$  of 1.9 nM in contracting the quinea-pig ileum.

**Purity:** > 98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

#### JMV 449 acetate

JMV 449 acetate is a potent **neurotensin receptor** agonist. JMV 449 acetate shows an  $\rm IC_{50}$  of 0.15 nM for inhibition of  $^{125}\rm I$ -neurotensin binding to neonatal mouse brain and an  $\rm EC_{50}$  of 1.9 nM in contracting the guinea-pig ileum.

H<sub>E</sub>N NH<sub>E</sub>

Cat. No.: HY-P1256C

**Purity:** 99.84%

Clinical Data: No Development Reported

Size: 5 mg

### Kinetensin

(Kinetensin (human)) Cat. No.: HY-P1255

Kinetensin is a **neurotensin**-like peptide isolated from pepsin-treated human plasma.

**Purity:** 99.21%

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

### Levocabastine hydrochloride

(R 50547 hydrochloride)

Levocabastine (R 50547) hydrochloride is a long acting, highly potent and selective histamine H1-receptor antagonist with anti-allergic activity.

Cat. No.: HY-14277A

Purity: ≥98.0% Clinical Data: Launched Size: 5 mg

### Levocabastine-d4 hydrochloride

(R 50547-d4 hydrochloride) Cat. No.: HY-14277AS

Levocabastine-d4 (R 50547-d4) hydrochlorideis the deuterium labeled Levocabastine hydrochloride. Levocabastine (R 50547) hydrochloride is a long acting, highly potent and selective histamine H1-receptor antagonist with anti-allergic activity.

**Purity:** >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

### Meclinertant

(SR 48692) Cat. No.: HY-105189

Meclinertant (SR 48692) is a potent, selective, nonpeptide and orally active neurotensin receptor 1 (NTS1) antagonist.



Purity: 98.05% Clinical Data: Phase 3

Size: 10 mM × 1 mL, 5 mg

### ML314

Cat. No.: HY-16639

ML314 is a potent molecule agonist of NTR1 (EC50 = 1.9  $\mu$ M); showed good selectivity against NTR2 and GPR35, but did not stimulate Ca2+ mobilization.



Purity: 99.82%

Clinical Data: No Development Reported

Size:  $10 \text{ mM} \times 1 \text{ mL}$ , 5 mg, 10 mg, 25 mg, 50 mg

#### Neurotensin

Cat. No.: HY-P0234

Neurotensin, a gut tridecapeptide, acts as a

potent cellular mitogen for various colorectal and pancreatic cancers which possess high-affinity neurotensin receptors (NTR).

Pyr-LYENKPRRPYIL

Purity: 97.40%

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

### Neurotensin(8-13)

Cat. No.: HY-P0251

Neurotensin (8-13) is an active fragment of Neurotensin. Neurotensin(8-13) results in a decrease in cell-surface NT1 receptors (NTR1) density.

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**Purity**: ≥98.0%

Clinical Data: No Development Reported Size: 1 mg, 5 mg, 10 mg, 25 mg NTRC-824

NTRC-824 (Compound 5) is a potent, selective and neurotensin-like nonpeptide <code>neurotensin</code> receptor <code>type 2</code> (NTS2) antagonist with an  $IC_{50}$  of 38 nM and a  $K_{\rm i}$  of 202 nM. NTRC-824 is >150-fold selectivity for NTS2 over NTS1 ( $K_{\rm i}$  >30  $\mu$ M).



Cat. No.: HY-12436

**Purity:** ≥98.0%

Clinical Data: No Development Reported

Size: 1 mg

#### SBI-553

Cat. No.: HY-125880

SBI-553 is a potent and brain penetrant NTR1 allosteric modulator, with an EC  $_{s0}$  of 0.34  $\mu M_{\odot}$ 

HO N N N

Purity: 98.85%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### SORT-PGRN interaction inhibitor 1

Cat. No.: HY-115213

SORT-PGRN interaction inhibitor 1 is a potent inhibitor of the sortilin-progranulin interaction with an  $IC_{so}$  of 2  $\mu M_{\cdot}$ 

HO

**Purity:** 98.49%

Clinical Data: No Development Reported

Size: 100 mg, 250 mg

#### VGD071

Cat. No.: HY-139668

VGD071, a **sortilin**-targeting compound, is a promising candidate for future studies using mouse breast cancer models.

0 = S = O N O N

**Purity:** > 98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

### Zendusortide

Cat. No.: HY-P3391

Zendusortide is a sortilin binding peptide.

Ac-GVRAKAGVRN{Nie}FKSESY

**Purity:** >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

### [D-Trp11]-Neurotensin

Cat. No.: HY-P3057

[D-Trp11]-Neurotensin, an analogue of Neurotensin (NT), is a selective antagonist of NT in perfused rat hearts but behaves as a full agonist in guinea pig atria and rat stomach strips.
[D-Trp11]-Neurotensin can inhibit NT-induced hypotension.



**Purity:** > 98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

## [Lys8, Lys9]-Neurotensin (8-13)

[Lys8, Lys9]-Neurotensin (8-13) (JMV438), a Neurotensin analog, exerts its analgesic effects through activation of the G protein-coupled receptors NTS1 and NTS2, with K, values of 0.33 nM and 0.95 nM for hNTS1 and hNTS2 receptors, respectively.

**Purity:** >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Cat. No.: HY-P2544