Data Sheet (Cat.No.T35597)

TargetMol

Neuromedin U-23 (rat) (trifluoroacetate salt)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Neuromedin U-23 (NMU-23) is a neuropeptide involved in diverse biological processes, including smooth muscle contraction, energy homeostasis, and nociception.1It is an agonist of neuromedin-U receptor 1 (NMUR1; EC50= 0.17 nM for the human receptor in a calcium mobilization assay using HEK293 cells) and NMUR2 (EC50= ~1.4-2 nM for arachidonic acid release in CHO cells expressing the human receptor).2,3NMU-23 (1 μM) induces contractions in isolated rat colon smooth muscle strips.4It decreases body weight and food intake and increases core body temperature in mice when administered at a dose of 36 μg/animal.5Intrathecal administration of NMU-23 decreases the mechanical pain threshold in the von Frey test in rats.6
Targets(IC50)	Others

Solubility Information

Solubility	PBS (pH 7.2): 1 mg/mL,Sonication is recommended. Ethanol: 1 mg/mL,Sonication is recommended. DMSO: 1 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Reference

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Szekeres, P.G., Muir, A.I., Spinage, L.D., et al.Neuromedin U is a potent agonist at the orphan G protein-coupled receptor FM3J. Biol. Chem.275(27)20247-20250(2000)

Hosoya, M., Moriya, T., Kawamata, Y., et al.Identification and functional characterization of a novel subtype of neuromedin U receptorJ. Biol. Chem.275(38)29528-29532(2000)

Brighton, P.J., Wise, A., Dass, N.B., et al.Paradoxical behavior of neuromedin U in isolated smooth muscle cells and intact tissueJ. Pharmacol. Exp. Ther.325(1)154-164(2008)

Peier, A., Kosinski, J., Cox-York, K., et al.The antiobesity effects of centrally administered neuromedin U and neuromedin S are mediated predominantly by the neuromedin U receptor 2 (NMUR2)Endocrinology150(7)3101-3109(2009)

Yu, X.H., Cao, C.Q., Mennicken, F., et al.Pro-nociceptive effects of neuromedin U in ratNeuroscience120(2)467-474(2003)

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481