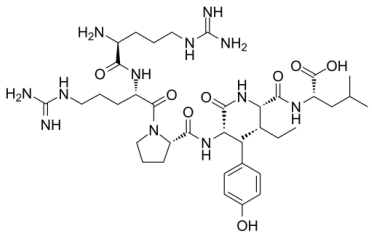
Data Sheet

Product Name:	Neurotensin(8-13)
Cat. No.:	CS-7110
CAS No.:	60482-95-3
Molecular Formula:	C38H64N12O8
Molecular Weight:	816.99
Target:	Others
Pathway:	Others
Solubility:	H2O : 50 mg/mL (61.20 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Neurotensin (8-13) is an active fragment of Neurotensin,. Neurotensin(8-13) results in a decrease in cell-surface NT1 receptors (NTR1) density. Sequence: Arg-Arg-Pro-Tyr-Ile-Leu. IC50 & Target: NTR1[1] **In Vitro:** Receptor internalization induced by Neurotensin(8-13) results in a decrease in cell-surface NT1 receptors (NTR1) density. The receptor downregulation in response to high extracellular concentrations of the peptide has been described for Neurotensin (NT) in HT-29 cells and in rat primary cultured neurons. Reappearance of the receptors on the cell surface is also different[1].

PROTOCOL (Extracted from published papers and Only for reference)

Kinase Assay: [1]Binding assays are performed on whole HT-29 cells at confluence. A day before the assay, cells (10^6 cells/0.4 mL, equivalent to 0.3 mg protein) are placed in 48-well plates. A special binding buffer that includes protease inhibitors (50 mM HEPES, 125 mM NaCl, 7.5 mM KCl, 5.5 mM $MgCl_2$, 1 mM EGTA, 5 g/L bovine serum albumin, 2 mg/L chymostatin, 100 mg/L soybean trypsin inhibitor, 50 mg/L bacitracin, pH 7.4) is used for the experiments. In inhibition studies, cells are incubated for 1 h at 37°C in triplicate with 25,000 cpm of ^{125}I-NT and variable concentrations (0.001-3,000 nM) of unlabeled NT(8-13), unlabeled NT-VIII, or NT-VIII labeled with ^{nat}Re (final volume of 0.2 mL per well). The cells are then washed twice with cold binding buffer and afterward are solubilized with 1N NaOH at 37°C (0.4 mL per well). The activity is determined in a γ-counter. In saturation studies, cells are incubated in triplicate with increasing concentrations (0.1-10 nM) of ^{99m}Tc(CO)3NT-VIII for 1 h at 37°C (final volume, 0.2 mL per well). The concentrations of total technetium ($^{99+99m}$Tc) are equivalent to 0.2-20 MBq ^{99m}Tc activity per well. After 2 washings with the same binding buffer as before, the cells are then solubilized with 1N NaOH at 37°C (0.4 mL per well). The bound radioactivity is measured in the γ-counter. Nonspecific binding is determined with 1 μM unlabeled NT(8-13)[1].

References:

[1]. García-Garayoa E, et al. Preclinical evaluation of a new, stabilized neurotensin(8--13) pseudopeptide radiolabeled with (99m)tc. J Nucl Med. 2002 Mar;43(3):374-83.

CAIndexNames:

L-Leucine, L-arginyl-L-arginyl-L-prolyl-L-tyrosyl-L-isoleucyl-

SMILES:

OC(C=C1)=CC=C1C[C@@H](C(N[C@@H]([C@@H](C)CC)C(N[C@H](C(O)=O)CC(C)C)=O)=O)NC([C@H]2N(CCC2)C([C@H](CCCNC(N)=N)NC([C@@H](N)CCCNC(N)=N)=O)=O)=O

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA