

Data Sheet

Product Name:	Neurotensin
Cat. No.:	CS-7092
CAS No.:	39379-15-2
Molecular Formula:	C78H121N21O20
Molecular Weight:	1672.92
Target:	Neurotensin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	H2O : 33.33 mg/mL (19.92 mM; Need ultrasonic)

Pyr-LYENKPRRPYIL

BIOLOGICAL ACTIVITY:

Neurotensin, a gut tridecapeptide, acts as a potent cellular mitogen for various colorectal and pancreatic cancers which possess high-affinity **neurotensin receptors (NTR)**. IC50 & Target: Neurotensin receptors (NTR)^[1] **In Vitro:** Neurotensin induces the expression of MIP-2, MCP-1, IL-1 β and TNF α in murine microglial cells and stimulates IL-8 secretion in a non-transformed colon epithelial cell line stably transfected with the NTR. The high-affinity NTR, a member of the G-protein coupled receptor (GPCR) family, is present in a majority of human pancreatic and colorectal cancers, suggesting that Neurotensin (NT) may act in an endocrine fashion to affect tumor growth. Acting through the NTR1, Neurotensin is known to stimulate various signal transduction pathways, including intracellular calcium ([Ca²⁺]_i), the mitogen-activated protein kinases (MAPKs), ERK and JNK, and various PKC isoforms. Treatment of HCT116 cells with Neurotensin (100 nM) significantly increases HCT116 cell migration (~3-fold) compared with vehicle treatment; pretreatment with Curcumin (10 μ M) blocks the stimulatory effect of NT on HCT116 cell migration. Activation of MEK/ERK by NT and downstream induction of AP-1 transcription factors contributes to the proliferative effects of Neurotensin^[1].

References:

[1]. Wang X, et al. Curcumin inhibits neurotensin-mediated interleukin-8 production and migration of HCT116 human colon cancer cells. Clin Cancer Res. 2006 Sep 15;12(18):5346-55.

CAIndexNames:

Neurotensin

SMILES:

[Pyr-LYENKPRRPYIL]

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