

Product datasheet for **TA328679**

Neurotensin Receptor 1 (NTSR1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide EQNRSADGQHAGGLVC corresponding to amino acid residues 209-224 of human Neurotensin Receptor 1. 2nd extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	neurotensin receptor 1 (high affinity)
Database Link:	NP_002522 Entrez Gene 4923 Human P30989



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Background:

Neurotensin receptor 1 (NTS1) is one of three receptors that mediate the effects of the tridecapeptide neurotensin. Neurotensin is synthesized and secreted from neurons in the central neural system (CNS) and from endocrine cells in the gastrointestinal tract. NTS1 and NTS2 belong to the 7-transmembrane domain, G protein-coupled receptor (GPCR) superfamily while the third neurotensin receptor NTS3 (also called Sortilin) is a type I membrane protein with a large extracellular domain. Both NTS1 and NTS3 bind neurotensin with high affinity while NTS2 binds it with low affinity. NTS1 signals preferentially through G α_q , resulting in the activation phospholipase C and intracellular Ca $^{2+}$ mobilization, although coupling with G β /o and to G β s has been observed in some expression systems. NTS1 is mainly expressed in the brain and gastrointestinal tract. In the brain, NTS1 mediates body temperature regulation, feeding behavior and locomotion regulation. One of the best studied roles of NTS1 is the regulation of dopamine release suggesting that NTS1 can be a suitable target for the development of a new class of anti-psychotics. In the periphery, NTS1 expression has been linked to the control of intestine motility and in the stimulation of growth of the intestine mucosa in both physiological and pathological conditions. NTS1 has been shown to be upregulated in several human cancers where it stimulates tumor growth in response to locally produced neurotensin peptide.

Synonyms:

NTR

Note:

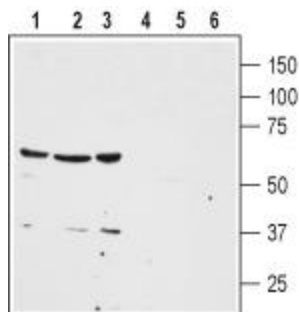
This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

Protein Families:

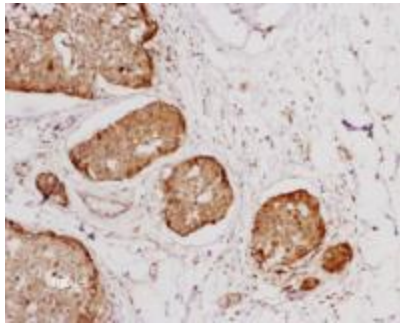
Druggable Genome, GPCR, Transmembrane

Protein Pathways:

Calcium signaling pathway, Neuroactive ligand-receptor interaction

Product images:

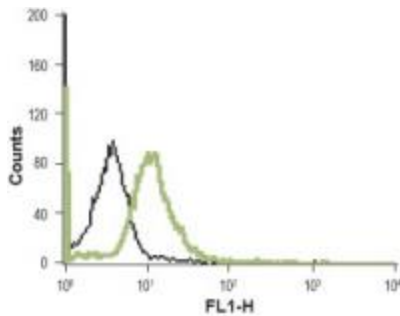
Western blot analysis of human colon cancer HT-29 (lanes 1 and 4), human lung small cell carcinoma NCI-H526 (lanes 2 and 5) and human breast adenocarcinoma MDA-MB-468 (lanes 3 and 6) cell lysates: 1-3. Anti-Neurotensin Receptor 1 (extracellular) antibody, (1:200). 4-6. Anti-Neurotensin Receptor 1 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Neurotensin Receptor 1 in human breast cancer. Immunohistochemical staining of human breast cancer cells using Anti-Neurotensin Receptor 1 (extracellular) antibody, (1:100). Staining (brown color) is specific for epithelium-derived malignant cells. Hematoxilin is used as the counterstain.



Expression of Neurotensin Receptor 1 in a human breast adenocarcinoma cell line. Immunocytochemical staining of a human breast adenocarcinoma cell line. A. Live intact human MCF-7 cells were stained with Anti-Neurotensin Receptor 1 (extracellular) antibody, (1:20), followed by Alexa 488-conjugated goat anti-rabbit antibody (green staining). B. Live view of the cells. C. Merge of (A) and (B).



Indirect flow cytometry analysis in live intact human promyelocytic leukemia HL-60 cell line: black line, Cells + FITC-conjugated goat anti rabbit antibody. green line, Cells + Anti-Neurotensin Receptor 1 (extracellular) antibody, (1:20) + FITC-conjugated goat-anti-rabbit antibody.