

Product datasheet for **TA328682**

p75 NGF Receptor (NGFR) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IHC, IP, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CEEIPGRWITRSTPPE, corresponding to amino acid residues 188-203 of human p75NTR. Extracellular, stalk domain.
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:	nerve growth factor receptor
Database Link:	NP_002498 Entrez Gene 18053 Mouse Entrez Gene 24596 Rat Entrez Gene 4804 Human P08138



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Background:

The p75NTR receptor is a member of the TNF receptor superfamily. p75NTR, like all the superfamily members is a type I transmembrane protein with tandem cysteine-rich domains in the extracellular portion and a intracellular death domain. p75NTR binds its ligands as a homodimer but can also form heterodimers with other receptors such as TrkA, TrkB, TrkC, Nogo receptor and sortilin. The precise multimeric receptor complex formed between p75NTR and the other receptors will determine the ligand being recognized (see below) and the biological response to its binding. As its name implies, p75NTR binds all the neurotrophins (NGF, BDNF, NT-3 and NT-4) with similar nM affinities. Co-expression of p75NTR with the Trk receptors enhances the ability to bind and respond to the specific neurotrophin and induces cell survival. On the other hand, it has recently been demonstrated that p75NTR binds with high affinity to the unprocessed form of NGF (proNGF) probably as a complex with sortilin and this leads to cell death by apoptosis. Finally, a multimeric complex of p75NTR and Nogo receptor binds myelin proteins such as Nogo-66, MAG and OmgP resulting in inhibition of axonal growth.

Synonyms:

CD271; Gp80-LNGFR; p75(NTR); p75NTR; TNFRSF16

Note:

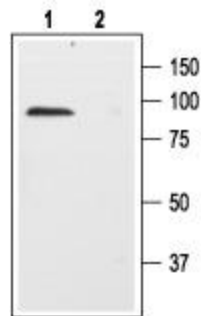
This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

Protein Families:

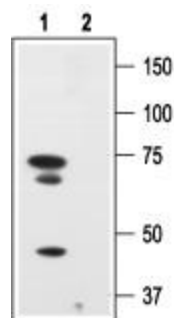
Druggable Genome, Transmembrane

Protein Pathways:

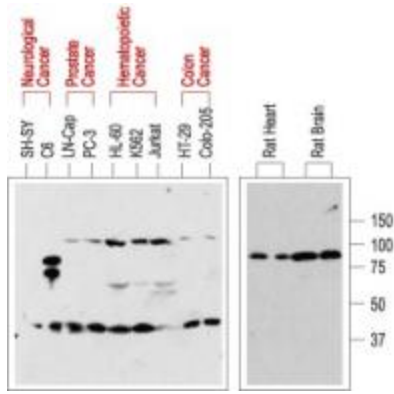
Cytokine-cytokine receptor interaction, Neurotrophin signaling pathway

Product images:

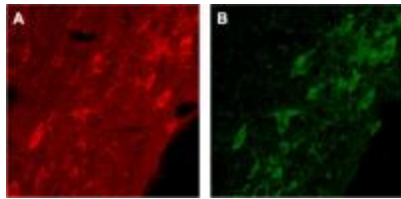
Western blot analysis of rat brain membranes: 1. Anti-Human p75NTR (extracellular) antibody, (1:200). 2. Anti-Human p75NTR (extracellular) antibody, preincubated with the control peptide antigen.



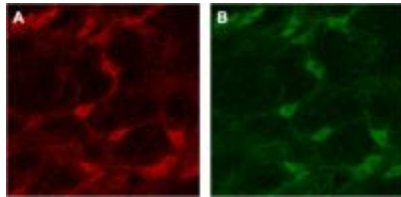
Western blot analysis of human melanoma cells A875: 1. Anti-Human p75NTR (extracellular) antibody, (1:200). 2. Anti-Human p75NTR (extracellular) antibody, preincubated with the control peptide.



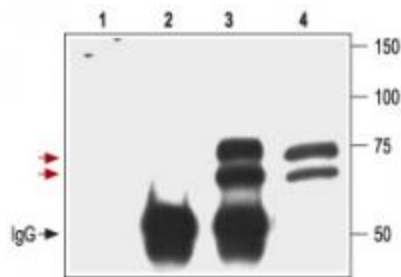
WB analysis of normal rat tissue (right) and in human cancer cell lines (left): p75NTR is visualized with Anti-Human p75NTR (extracellular) antibody, (1:200). Interestingly, p75NTR from rat (right blot and the C6 cell line) and human (left blot) samples run with a different apparent MW, probably due to species-specific differential glycosylation.



Expression of p75NTR in rat brain. Immunohistochemical staining of rat brain with Anti-Human p75NTR (extracellular) antibody. A. Cells in the diagonal band are stained positive for p75NTR. B. Staining of the same section with goat anti-ChAT confirms that p75NTR staining is specific to cholinergic neurons.



Expression of p75NTR in rat brain. Immunohistochemical staining of rat brain with Anti-Human p75NTR (extracellular) antibody. A. Cells in the nucleus basalis ganglionic cells are stained positive for p75NTR. B. Staining of the same section with goat anti-ChAT confirms that the p75NTR staining is specific to cholinergic neurons.



Immunoprecipitation of 3T3/p75NTR transfected cells: 1. Cell lysate + protein A beads. 2. Cell lysate + protein A beads + pre-immune rabbit serum. 3. Cell lysate + protein A beads + Anti-Human p75NTR (extracellular) antibody. 4. Cell lysate. Red arrows indicate the p75NTR receptor while the black arrow shows the IgG heavy chain. Immunoblot was performed with the Anti-Human p75NTR (extracellular) antibody.