

Rabbit Anti-NGFR/p75NTR antibody

SL0161R

Product Name	NGFR/p75NTR
Chinese Name	神经生长因子受体抗体
Alias	TNR16_HUMAN; Tumor necrosis factor receptor superfamily member 16; Gp80-LNGFR; Low affinity neurotrophin receptor p75NTR; Low-affinity nerve growth factor receptor (NGF receptor 1 Publication); p75 ICD; CD271; TNFRSF16; p75NTR; p75(NTR); Gp80-LNGFR; p75 NGF Receptor;
Research Area	Cell biology Neurobiology Signal transduction
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse(predicted:Human,Rat,Dog,Pig,Cow,Horse,GuineaPig) Flow-Cyt=1 μ g/Test (Paraffin sections need antigen repair)
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	44kDa
Cellular localization	The nucleus cytoplasmic The cell membrane Extracellular matrix
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human NGFR: 301-400/427 <Cytoplasmic>
Lsotype	IgG
Purification	affinity purified by Protein A Mouse(predicted:Human,Rat,Dog,Pig,Cow,Horse,GuineaPig)1M
Buffer Solution	TBS(pH7.4) with 1% BSA, Mouse(predicted:Human,Rat,Dog,Pig,Cow,Horse,GuineaPig)3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

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The low affinity NGFR (Nerve growth factor receptor) is a 75kDa membrane-spanning glycoprotein lacking intrinsic tyrosine kinase activity. p75NGFR interacts with TrkA, the high affinity NGF receptor and potentiates TrkA signaling at low NGF concentrations. The p75 receptor binds nerve growth factor, brain-derived neurotrophic factor, neurotrophin-3 and neurotrophin-4 with varying specificities. The p75NGFR plays an important role in neurotrophic factor signaling and has been shown to modulate the susceptibility of selective cellular populations to programmed cell death. It is expressed on many neuronal cells types including many embryonic forms and the receptor can be used to isolate neuronal progenitor cells. NGF is important for the development, differentiation and survival of a variety of neuronal and non-neuronal cells. Its action is mediated by binding to two distinct receptors, the high affinity p140 and low affinity p75. p75NGFR binds neurotrophins including brain-derived neurotrophic factor (BDNF), neurotrophin-3 (NT-3), NT-4/5, and NT-6. p75NGFR belongs to the TNF-R superfamily and is reported to mediate NGF-induced apoptosis.

Function:

Low affinity receptor which can bind to NGF, BDNF, NT-3, and NT-4. Can mediate cell survival as well as cell death of neural cells.

Product Detail

Subunit:

Homodimer; disulfide-linked. Interacts with p75NTR-associated cell death executor. Interacts with NGFRAP1/BEX3. Interacts with TRAF2, TRAF4, TRAF6, PTPN13 and RANBP9. Interacts through TRAF6 with SQSTM1 which bridges NGFR to NTRK1. Interacts with BEX1. Interacts with KIDINS220 and NTRK1. Can form a ternary complex with NTRK1 and KIDINS220 and this complex is affected by the expression levels of KIDINS220. An increase in KIDINS220 expression leads to a decreased association of NGFR and NTRK1. Interacts with LINGO1 (By similarity). Interacts with NTRK2; may regulate the ligand specificity of the NTRK2 receptor. Interacts with NRADD.

Subcellular Location:

Membrane; Single-pass type I membrane protein.

Post-translational modifications:

N- and O-glycosylated.

Phosphorylated on serine residues.

Similarity:

Contains 1 death domain.
Contains 4 TNFR-Cys repeats.

SWISS:
P07174

Gene ID:
4804

Database links:

[Entrez Gene: 4804](#) Human

[Entrez Gene: 18053](#) Mouse

[Entrez Gene: 24596](#) Rat

[Omim: 162010](#) Human

[SwissProt: P08138](#) Human

[SwissProt: Q9Z0W1](#) Mouse

[SwissProt: P07174](#) Rat

[Unigene: 415768](#) Human

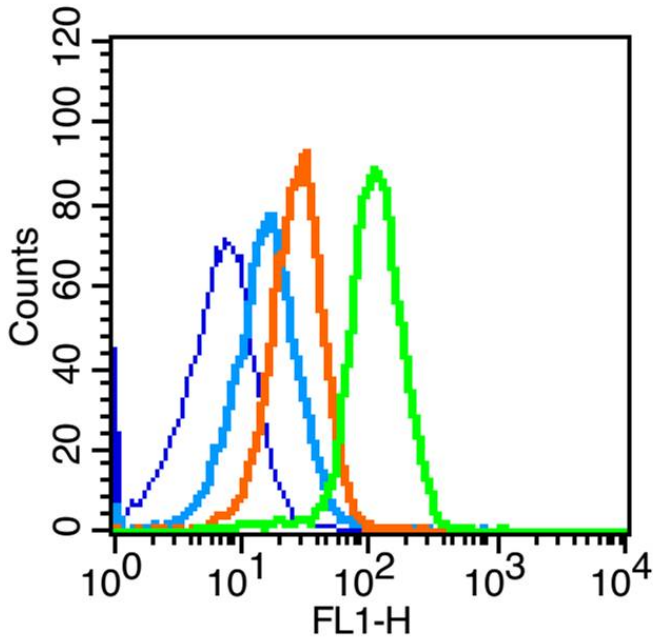
[Unigene: 681726](#) Human

[Unigene: 283893](#) Mouse

[Unigene: 10980](#) Rat

Neurobiology 相关蛋白 (Neurobiology)

NGFR 神经生长因子受体又称: CD271 存在与细胞上的与神经生长因子相结合并相互作用的蛋白质因子, 属一型跨膜 TNF 受体超家族 glycoprotein, 它可与 NGF, BDNF, NT-3, NT-4 结合, 根据与神经生长因子的结合力速度及亲和力可分为高亲和力和低亲和力两种 NGFR。此抗体识别分子量为 47kDa 低亲和力的 NGFR.NGF-R 也称为低亲和神经生长因子受体, 属 1 型跨膜 TNF 受体超家族。



Product Picture

Blank control (blue line): Mouse spleen (blue).

Primary Antibody (green line): Rabbit Anti- p75 NGF Receptor antibody (SL0161R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

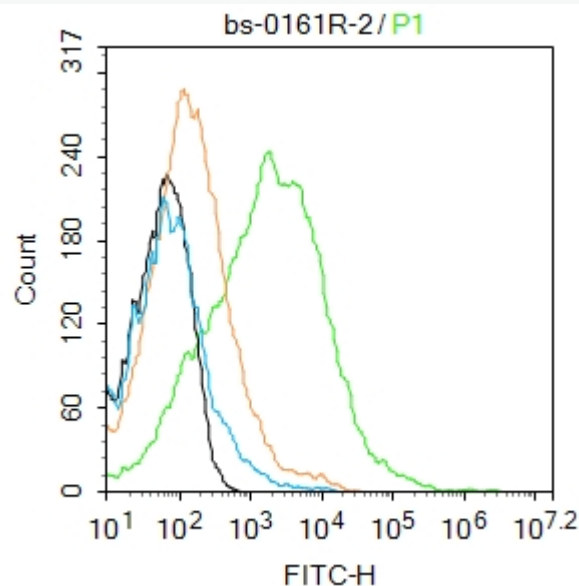
Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 70% ice-cold methanol overnight at 4°C and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature

(The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice.). Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control:Mouse brain.

Primary Antibody (green line): Rabbit Anti-p75 NGF Receptor antibody (SL0161R)

Dilution: 2 μ g /10⁶ cells;

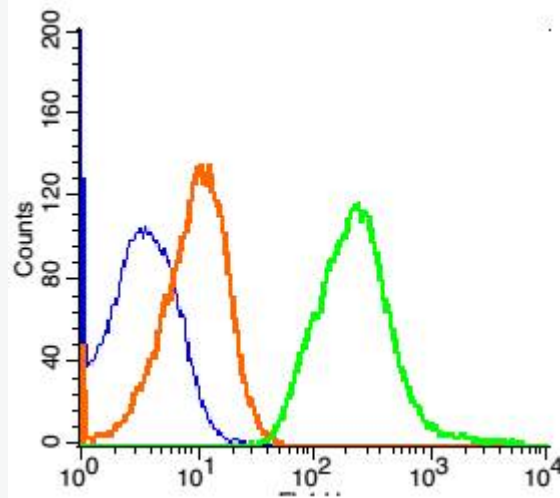
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF488

Dilution: 1 μ g /test.

Protocol

The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control: (mo)nephrocyte(blue)

Isotype Control Antibody: Rabbit IgG -AF647(orange); Primary Antibody

Dilution: 5 μ l in 100 μ L PBS containing 0.5% BSA(green).