

Alexa Fluor® 647 anti-human CD271 (NGFR) Antibody

Catalog# / Size	345113 / 25 tests 345114 / 100 tests
Clone	ME20.4
Regulatory Status	RUO
Other Names	p75NTR, TNFRSF16, p75(NTR), Gp80-LNGFR, NGFR, Nerve Growth Factor Receptor
Isotype	Mouse IgG1, κ
Description	CD271, also known as p75NTR, TNFRSF16, p75(NTR), Gp80-LNGFR, and NGFR, is a type I transmembrane protein with a MW of 75 kD. It is expressed by many cell types including neurons, Schwann cells, mesenchymal stem/stromal cells, follicular dendritic cells and melanocytes. The extracellular portion contains four TNFR-Cys repeats that form the binding domain for its ligands (NGF, BDNF, NTF3, and NTF4). The intracellular portion of CD271 contains a death domain, which interacts with TRAF2, TRAF4, TRAF6, PTPN13 and RANBP9, to promote cell apoptosis, and to regulate cell differentiation and neurogenesis.

Product Details

Reactivity	Human, African Green, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	WM245 melanoma cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications for the relevant formats include: immunoprecipitation ¹ , Western blotting ⁴ , immunohistochemical staining of frozen or paraffin embedded tissue sections ^{1,2} , and blocking of NGF binding ¹ .
Application References	<ol style="list-style-type: none">1. Ross A, <i>et al.</i> 1984. <i>P. Natl. Acad. Sci. USA</i> 81:6681. (FC, IP, Block, IHC)2. Cattoretti G, <i>et al.</i> 1993. <i>Blood</i> 81:1726. (IHC)3. Kamke MR, <i>et al.</i> 2005. <i>Hear Res.</i> 206:89.4. Baker D, <i>et al.</i> 1989. <i>Cancer Res.</i> 49:4142-4146. (FC, WB)
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none">1. Fucci C, <i>et al.</i> 2020. <i>Cell Rep.</i> 32:108162. PubMed

2. Hirai T, *et al.* 2020. *Immunity*. 54(1):84-98.e5. [PubMed](#)
3. Naamati A, *et al.* 2019. *Elife*. 8:e41431. [PubMed](#)

RRID AB_2572058 (BioLegend Cat. No. 345113)
 AB_2572059 (BioLegend Cat. No. 345114)

Antigen Details

Structure	Type I transmembranal protein with a MW of 75 kD. The extracellular portion contains four TNFR-Cys repeats that form the NGF binding domain; the intracellular portion contains a death domain.
Distribution	Expressed by many cell types including neurons, Schwann cells, mesenchymal stem/stromal cells, follicular dendritic cells, melanocytes.
Function	Apoptosis, differentiation, neurogenesis.
Interaction	TRAF2, TRAF4, TRAF6, PTPN13, RANBP9.
Ligand/Receptor	Nerve growth factor (NGF), Brain-derived neurotrophic factor (BDNF), Neurotrophin 3. (NTF3) , Neurotrophin 4 (NTF4)
Bioactivity	Apoptosis, differentiation, neurogenesis.
Cell Type	Dendritic cells, Mesenchymal cells, Mesenchymal Stem Cells, Neurons
Biology Area	Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Immunology, Neuroscience, Stem Cells, Synaptic Biology
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors, Postsynaptic proteins
Antigen References	<ol style="list-style-type: none"> 1. Friedman MJ, <i>et al.</i> 2009. <i>J. Biol. Chem.</i> 284:27944. 2. Rock JR, <i>et al.</i> 2009. <i>Proc Natl Acad Sci USA.</i> 106:12771. 3. Kidd SK, <i>et al.</i> 2008. <i>Brain Res.</i> 1195:113. 4. Peters EM, <i>et al.</i> 2007. <i>Am J Pathol.</i> 171:1872. 5. Jansen P, <i>et al.</i> 2007. <i>Nat Neurosci.</i> 10:1449.
Gene ID	4804

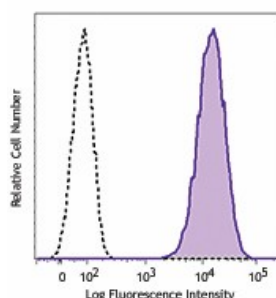
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD271 (NGFR), FITC anti-human CD271 (NGFR), PE anti-human CD271 (NGFR), APC anti-human CD271 (NGFR), PE/Cyanine7 anti-human CD271 (NGFR), PerCP/Cyanine5.5 anti-human CD271 (NGFR), Alexa Fluor® 647 anti-human CD271 (NGFR), Alexa Fluor® 700 anti-human CD271 (NGFR), PE/Dazzle™ 594 anti-human CD271 (NGFR), APC/Fire™ 750 anti-human CD271 (NGFR), Biotin anti-human CD271 (NGFR), TotalSeq™-A0816 anti-human CD271 (NGFR), APC/Cyanine7 anti-human CD271 (NGFR), TotalSeq™-C0816 anti-human CD271 (NGFR), TotalSeq™-B0816 anti-human CD271 (NGFR), Pacific Blue™ anti-human CD271 (NGFR) Antibody

Product Data



Human neuroblastoma cell line, SK-N-MC, was stained with CD271 (clone ME20.4) Alexa Fluor® 647 (filled histogram) or mouse IgG1, κ Alexa Fluor® 647 isotype control (open histogram).

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