Antibodies

Anti-Human NGF Receptor/p75NTR (CD271) Antibody, Clone MLR2, FITC

Mouse monoclonal IgG2a antibody against human, mouse, rat NGF receptor/p75NTR (CD271), FITC-conjugated

Catalog #60102FI | 100 µg | 1 mg/mL

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Product Description

The MLR2 (MLR-2) antibody reacts with the extracellular domain of the nerve growth factor (NGF) receptor, also known as p75NTR and CD271. The NGF receptor is an ~75 kDa type 1 transmembrane glycophosphoprotein expressed by several cell types including neurons, Schwann cells, mesenchymal stem and stromal cells, follicular dendritic cells, melanocytes, and numerous cell lines. The receptor binds the neurotrophins NGF, BDNF, NTF3, and NTF4, which comprise a family of protein growth factors that stimulate neuronal cells to survive and differentiate. The MLR2 antibody reportedly blocks binding of NGF to the receptor. By mediating neurotrophin signals, the NGF receptor appears to play roles in multiple processes, including neuronal survival, apoptosis, neurite outgrowth and muscle repair. There is also evidence for roles in development of the eyes and sensory neurons. Expression of the NGF receptor has been used as a marker to isolate human neuronal progenitor cells and embryonic mouse motoneurons.

Target Antigen Name:	NGF Receptor, p75NTR (CD271)
Alternative Names:	CD271, Gp80-LNGFR, LNGFR, Low-affinity nerve growth factor receptor, Low affinity neurotrophin receptor p75NTR, NGFR, p75 ICD, TNFRSF16, Tumor necrosis factor receptor superfamily member 16
Gene ID:	4804
Species Reactivity:	Human, Mouse, Rat, Guinea Pig, Primates (predicted)
Host Species:	Mouse (Jax C, 129S-Ngfr, tm1jae/J)
Clonality:	Monoclonal
Clone:	MLR2
Isotype:	IgG2a
Immunogen:	Chimeric protein comprising human NGF receptor/p75NTR fused to the Fc region of human IgG1
Conjugate:	FITC

Applications

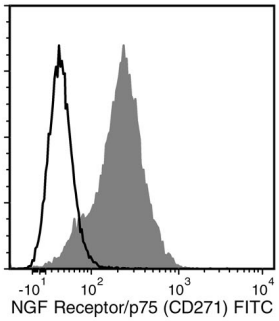
Verified:	FC
Reported:	FC, ICC, IF, IHC, In vivo staining
Special Applications:	This antibody clone has been verified for labeling mammalian neural crest cells grown with NeuroCult™ SM1 Neuronal Supplement (Catalog #05711) and mesenchymal stem cells grown with MesenCult™-XF Medium (Catalog #05420).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	10 mM Tris/150 mM NaCl buffer
Purification:	The antibody was purified by Protein G affinity chromatography, conjugated to fluoroscein (FITC), and re-purified by size-exclusion chromatography to remove unconjugated FITC.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	The suggested use of this antibody is: FC, ≤ 2 µg per 1 x 10e6 cells in 100 µL volume; in vivo immunofluorescent staining of the enteric nervous system, 2 µg/g animal weight. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human neural progenitor cells (NPCs) generated from induced pluripotent (iPS) cells using STEMdiff™ Neural Induction Medium (Catalog #05835) and cultured on Corning® Matrigel®. NPCs were fixed and labeled with Anti-Human NGF Receptor/p75 (CD271) Antibody, Clone MLR2, FITC (filled histogram) or a mouse IgG2a, kappa FITC isotype control antibody (open histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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