Technical Data Sheet

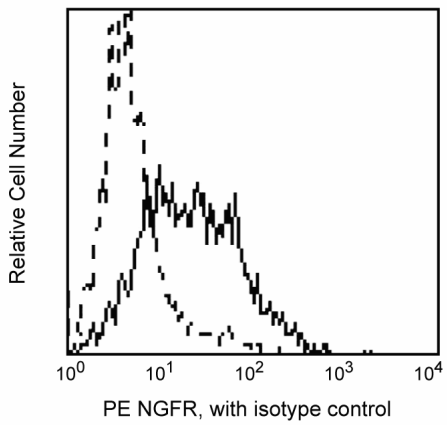
PE Mouse Anti-Human CD271

Product Information

Material Number:	**557196**
Alternate Name:	NFGR; TNFRSF16; Tumor necrosis factor receptor superfamily member 16
Size:	100 tests
Vol. per Test:	20 µl
Clone:	C40-1457
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The C40-1457 monoclonal antibody specifically reacts with CD271, the nerve growth factor receptor (NGFR). CD271 is a transmembrane 75 kDa protein that has been found localized to neuronal axons, Schwann cells, and perineural cells of peripheral nerves. It is also expressed by cells in some epithelial, mesenchymal and lymphoid tissues. NGFR is the receptor for nerve growth factor (NGF), a polypeptide that is essential for normal development of the nervous system. NGF promotes survival and differentiation of sympathetic and sensory neurons during embryological development of peripheral neurons. NGF binds to two distinctive surface receptors expressed by target cells, the p140-TrkA (NTRK1) and the p75 NGFR. High affinity binding of NGF requires that both receptor molecules be expressed. NGFR has been found on human and rat lymphocytes. A subset of lymphoid cells in the spleen, lymph nodes, and follicular dentritic cells in germinal centers of reactive lymph nodes were found to express CD271. It has been reported that NGFR interaction with its ligand, NGF, may play a role in immunoregulation. NGF may function as a B-cell growth factor.



Profile of REH cell line analyzed by flow cytometry

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 tests	MOPC-21

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

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3. An isotype control should be used at the same concentration as the antibody of interest.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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Chesa PG, Rettig WJ, Thomson TM, Old LJ, Melamed MR. Immunohistochemical analysis of nerve growth factor receptor expression in normal and malignant human tissues. *J Histochem Cytochem.* 1988; 36(4):383-389. (Biology)

Hempstead BL, Martin-Zanca D, Kaplan DR, Parada LF, Chao MV. High-affinity NGF binding requires coexpression of the trk proto-oncogene and the low-affinity NGF receptor. *Nature.* 1991; 350(6320):678-683. (Biology)

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