

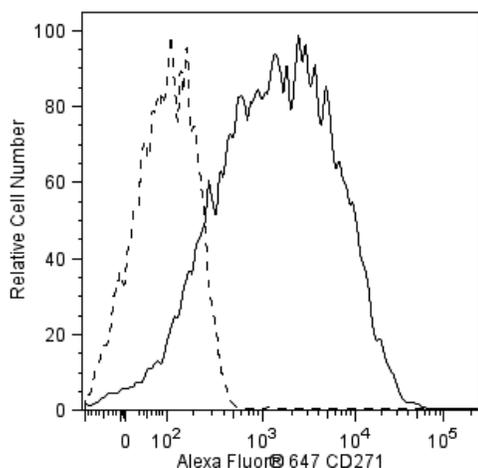
Technical Data Sheet

Alexa Fluor® 647 Mouse anti-Human CD271**Product Information**

Material Number:	560877
Alternate Name:	NGFR; NGF Receptor; TNFRSF16
Size:	25 Tests
Vol. per Test:	20 µl
Clone:	C40-1457
Immunogen:	Human NGFR Recombinant Protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VIII 80150
Storage Buffer:	Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description

The C40-1457 monoclonal antibody specifically recognizes CD271 that is also known as the nerve growth factor receptor (NGFR). CD271 is 75 kDa type I transmembrane glycoprotein likewise known as TNFRSF16 that belongs to the tumor necrosis factor receptor (TNFR) superfamily. CD271 has been found localized to neuronal axons, Schwann cells, and perineural cells of peripheral nerves. It is also expressed by 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 the peripheral nervous system. NGF binds to two distinctive surface receptors, the p140[prototr] and p75[NGFR]. High affinity binding of NGF requires that both receptor molecules be expressed. NGFR is expressed on human and rat lymphocytes. A subset of lymphoid cells in the spleen, lymph nodes, and follicular dendritic 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 also function as a B-cell growth factor.



Flow cytometric analysis of CD271 expression on REH cell line. REH cells were stained with either Alexa Fluor® 647 Mouse anti-Human CD271 (Cat. No. 560877/560326; solid line histogram) or Alexa Fluor® 647 Mouse IgG1 κ Isotype Control (Cat. No. 557714; dashed line histogram). Fluorescence histograms depicting CD271 (or Ig isotype control) expression were derived from gated events with the forward and side light-scatter characteristics of viable REH cells. Flow cytometry was performed on a BD™ LSR II flow cytometry system.

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 to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes**Application**

Flow cytometry

Routinely Tested

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560877 Rev. 2



Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
557714	Alexa Fluor® 647 Mouse IgG1 κ Isotype Control	100 Tests	MOPC-21
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
560326	Alexa Fluor® 647 Mouse anti-Human CD271	100 Tests	C40-1457

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. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

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