Technical Data Sheet

# Alexa Fluor® 647 Mouse anti-Human CD271

## Product Information

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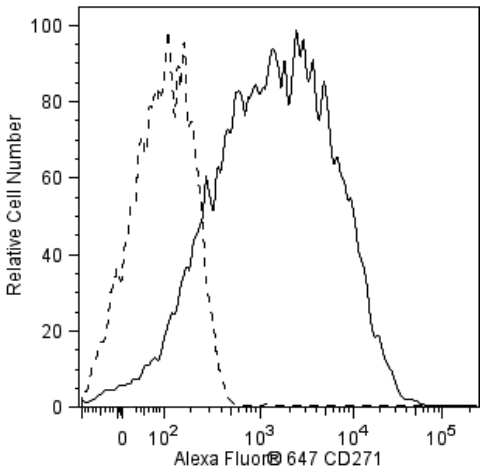
| **Material Number:** | **560877** |
| **Alternate Name:** | NGFR, NGF Receptor |
| **Size:** | 25 tests |
| **Vol. per Test:** | 20 µl |
| **Clone:** | C40-1457 |
| **Isotype:** | Mouse IgG1, κ |
| **Reactivity:** | QC Testing: Human |
| **Storage Buffer:** | Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide. |

## Description

Reacts with **n**erve **g**rowth **f**actor **r**eceptor (NGFR), a 75 kDa protein that has been found localized to neuronal axons, Schwann cells, and perineural cells of peripheral nerves. It has also been found in some epithelial, mesenchymal and lymphoid tissues. NGFR is the receptor for **n**erve **g**rowth **f**actor (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, the p/140[prototrk] and 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 p75. 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.




***Flow cytometric analysis of CD271 on REH cells.*** *The cells were stained with either Alexa Fluor® 647 Mouse anti-Human CD271 or Alexa Fluor® 647 Mouse IgG1 κ Isotype Control (clone MOPC-21, Cat. No. 557714). 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**

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| Flow cytometry | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 557714 | Alexa Fluor® 647 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).

**BD Biosciences**

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2. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
3. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

## References


Brodie C, Gelfand EW. Functional nerve growth factor receptors on human B lymphocytes. Interaction with IL-2. *J Immunol.* 1992; 148(11):3492-3497. (Biology)

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)

Thompson SJ, Schatteman GC, Gown AM, Bothwell M. A monoclonal antibody against nerve growth factor receptor. Immunohistochemical analysis of normal and neoplastic human tissue. *Am J Clin Pathol.* 1989; 92(4):415-423. (Biology)