# **Technical Data Sheet** Alexa Fluor® 647 Mouse anti-Human CD271

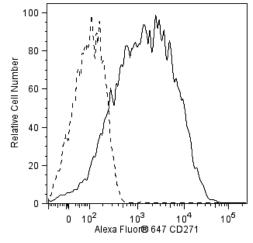
#### **Product Information**

Material Number:
Alternate Name:
Size:
Vol. per Test:
Clone:
Isotype:
Reactivity:
Storage Buffer:

560326 NGFR, NGF Receptor 100 tests 20 µl C40-1457 Mouse IgG1, ĸ QC Testing: Human Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

## Description

Reacts with nerve growth factor receptor (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 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, 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 svstem.

### **Preparation and Storage**

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

#### **Application Notes**

Flow cytometry	Routinely Tested		
Suggested Compar	ion Products		
Catalog Number	Name	Size	Clone
557714	Alexa Fluor® 647 Mouse IgG1 κ Isotype Control	100 tests	MOPC-21
	v.bdbiosciences.com/pharmingen/protocols for technical protocols.		
3. Alexa Fluor® 647	fluorochrome emission is collected at the same instrument settings as for	allophycocyanin (APC).	
<b>BD Biosciences</b>			
bdbiosciences.com United States Canada 877.232.8995 888.259.018	Europe Japan Asia Pacific Latin America/Caribbean   7 32.53.720.550 0120.8555.90 65.6861.0633 55.11.5185.9995		<b>B</b>

877.232.8995 888.259.0187 32.53.720.550 0120.8555.90 For country-specific contact information, visit bdbiosciences.com/how\_to\_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited. For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2008 BD

- 4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
- 5. The Alexa Fluor®, Pacific Blue<sup>TM</sup>, 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<sup>TM</sup> dye, and Cascade Blue® dye are covered by pending and issued patents.
- 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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- 8. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.

#### 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)

Guesdon JL, Ternynck T, Avrameas S. The use of avidin-biotin interaction in immunoenzymatic techniques. J Histochem Cytochem. 1979; 27(8):1131-1139. (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)