

Technical Data Sheet

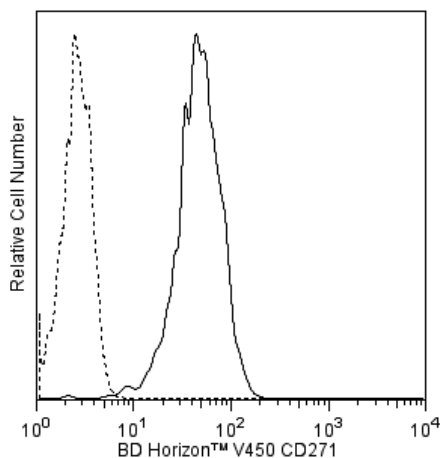
V450 Mouse Anti-Human CD271**Product Information**

Material Number:	562123
Alternate Name:	NGFR; NTR; p75NTR; p75 ICD; TNFRSF16; TNFR16; LNGFR
Size:	50 tests
Vol. per Test:	5 µl
Clone:	C40-1457
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing protein stabilizer, glycerol and ≤0.09% sodium azide.

Description

The C40-1457 monoclonal antibody specifically binds to 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 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 function as a B-cell growth factor.

The antibody is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon™ V450 can be used in place of Pacific Blue™ conjugates.



Flow cytometric analysis of CD271 expression on SK-N-MC cells. Human SK-N-MC (ATCC HTB-10) cells were stained with either BD Horizon™ V450 Mouse Anti-Human CD271 antibody (Cat. No. 562123, solid line histogram) or a BD Horizon™ V450 mIgG1, κ Isotype Control (Cat. No. 560373; dashed line histogram). Flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometry was performed using 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 with BD Horizon™ V450 under optimum conditions, and unreacted BD Horizon™ V450 was removed.

Application Notes**Application**

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
560373	V450 Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21

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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- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. BD Horizon™ V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
4. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

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