Human TrkC Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 75213

Catalog Number: FAB3731R

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TrkC in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) TrkA, rhTrkB, or recombinant mouse TrkC is observed.
Source	Monoclonal Mouse IgG_1 Clone # 75213
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TrkC Cys32-Asp428 Accession # Q16288
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

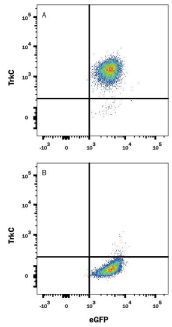
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10^6 cells	See Below

DATA

Flow Cytometry



Detection of TrkC in Human TrkC transfected cells by Flow Cytometry. Human TrkC transfected Baf/3 cells (A), or (B) irrelevant transfectants and eGFP, were stained with Mouse Anti-Human TrkC Alexa Fluor® 647-conjugated Monoclonal Antibody (Catalog # FAB3731R). Quadrants were set based on Mouse Monoclonal IgG2B Alexa Fluor® 647-conjugated isotype control antibody (Catalog # IC0041R, data not shown). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

The neurotrophins, including NGF, BDNF, NT-3 and NT-4/5, constitute a group of structurally related, secreted proteins that play an important role in the development and function of the nervous system. The biological activities of the neurotrophins are mediated by binding to and activating two unrelated receptor types: the p75 neurotrophin receptor (p75NTR) and the Trk family of receptor tyrosine kinases (1, 2). P75NTR is a member of the tumor necrosis factor receptor superfamily (TNFRSF) and has been designated TNFRSF16. It binds all neurotrophins with low-affinity to transduce cellular signaling pathways that synergize or antagonize those activated by the Trk receptors. Three Trk family proteins, TrkA, TrkB and TrkC, exhibiting different ligand specificities, have been identified. TrkA binds NGF and NT-3, TrkB binds BDNF, NT-3 and NT-4/5, and TrkC only binds NT-3 (1, 2). All Trk family proteins share a conserved, complex subdomain organization consisting of a signal peptide, two cysteine-rich domains, a cluster of three leucine-rich motifs, and two immunoglobulin-like domains in the extracellular region, as well as an intracellular region that contains the tyrosine kinase domain (3). Natural splice variants of the different Trks, lacking the first cysteine-rich domain, the first and second or all three of the leucine-rich motifs, or the tyrosine kinase domain, have been described (4). At the protein sequence level, Trks are highly conserved between species with the extracellular domains of human and mouse TrkC's showing 94% amino acid sequence identity (5). The proteins also exhibit cross-species activity. The primary location of TrkC expression is in the nervous system and, specifically, in regions of the CNS. Low level TrkC expression has also been observed in a wide variety of tissues outside the nervous system (6).

References:

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2. Dechant, G. (2001) Cell Tissue Res. **305**:229.
3. Schneider, R. and M. Schweiger (1991) Oncogene **6**:1807.
4. Ninkina, N. *et al.* (1997) J. Biol. Chem. **272**:13019.
5. Menn, B. *et al.* (1998) J. Comp. Neurol. **401**:47.
6. Shelton, D. *et al.* (1995) J. Neurosci. **15**:477.

PRODUCT SPECIFIC NOTICES

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