

# **Human TrkA APC-conjugated Antibody**

Monoclonal Mouse IgG<sub>1</sub> Clone # 165131R Catalog Number: FAB1751RA

100 Tests

DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human TrkA in direct ELISAs.		
Source	Monoclonal Mouse IgG <sub>1</sub> Clone # 165131R		
Purification	Protein A or G purified from cell culture supernatant		
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TrkA Ala33-Glu407 Accession # P04629		
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm		
Formulation	Supplied as a solution in PBS containing BSA, Glycerol 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.		

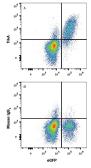
#### APPLICATIONS

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.

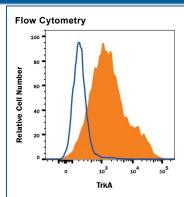
	Recommended Concentration	Sample
Knockout Validated	μg/mL	See Below
Flow Cytometry	10 μL/10 <sup>6</sup> cells	See Below

## DATA

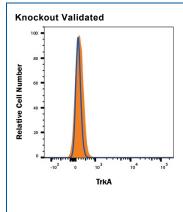
## Flow Cytometry



Detection of TrkA in BAF Cell Line Transfected with Human TrkA and eGFP by Flow Cytometry. BAF cell line transfected with human TrkA and eGFP was stained with (A) Mouse Anti-Human TrkA APC-conjugated Monoclonal Antibody (Catalog # FAB1751RA) or (B) Mouse IgG1 isotype control antibody (Catalog # Catalog # ICOCA). View our protocol for Staining Membrane-associated



Detection of TrkA in K562 Human Cell Line by Flow Cytometry. K562 human chronic myelogenous leukemia cell line was stained with Mouse Anti-Human TrkA APC-conjugated Monoclonal Antibody (Catalog # FAB1751RA, filled histogram) or isotype control antibody (Catalog # Catalog # Catolog # IC002A, open histogram). View our protocol for Staining Membrane-associated Proteins.



TrkA is specifically detected in K562 human chronic myelogenous leukemia cell line parental cell line but is not detectable in TrkA knockout K562 cell line. TrkA knockout K562 human chronic myelogenous leukemia cell line was stained with Mouse Anti-Human TrkA APC-connjugated Monoclonal Antibody (Catalog # FAB1751RA, filled histogram) or isotype control antibody (Catalog # Catalog # IC002A, open histogram). No staining in the TrkA knockout K562 cell line was observed. View our protocol for Staining Membrane-associated Proteins.

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#### 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.

#### BACKGROUND

TrkA, the product of the proto-oncogene trk, is a member of the neurotrophic tyrosine kinase receptor family that has three members. TrkA, TrkB, and TrkC preferentially bind NGF, NT-4 and BDNF, and NT-3, respectively. 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. Two distinct TrkA isoforms that differ by virtue of a 6-amino acid insertion in their extracellular domain have been identified. The longer TrkA isoform is the only isoform expressed within neuronal tissues whereas the shorter TrkA is expressed mainly in non-neuronal tissues. NGF binds to TrkA with low affinity and activates its cytoplasmic kinase, initiating a signaling cascade that mediates neuronal survival and differentiation. Higher affinity binding of NGF requires the coexpression of TrkA with the p75 NGF receptor (NGF R), a member of the tumor necrosis factor receptor superfamily. NGF R binds all neurotrophins with low affinity and modulates Trk activity as well as alters the specificity of Trk receptors for their ligands. NGF R can also mediate cell death when expressed independent of Trk.

