

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human TrkA in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant rat TrkA is observed and 10% cross-reactivity with recombinant human (rh) TrkB and rhTrkC is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human TrkA Ala33-Glu407 Accession # AAA36770
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

<b>CyTOF-ready</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Neutralization</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Western Blot</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Flow Cytometry</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunohistochemistry</b>	Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	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 (NGFR), a member of the tumor necrosis factor receptor superfamily. NGFR binds all neurotrophins with low affinity and modulates Trk activity as well as alters the specificity of Trk receptors for their ligands. NGFR can also mediate cell death when expressed independent of Trk.

## PRODUCT SPECIFIC NOTICES

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