

## DESCRIPTION

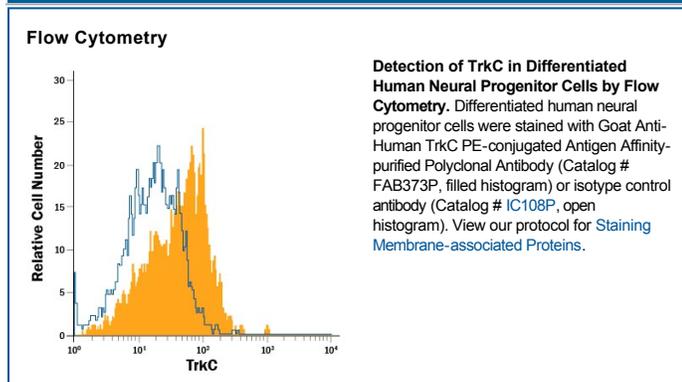
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human TrkC in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human TrkB is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human TrkC Cys32-Asp428 Accession # Q16288
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## 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

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 (p75<sup>NTR</sup>) and the Trk family of receptor tyrosine kinases. p75<sup>NTR</sup> is a member of the tumor necrosis factor receptor superfamily (TNFRSF) and has been designated TNFRSF16. Although it binds all neurotrophins with low-affinity, it complexes with the Trks to form high affinity neurotrophin receptors, and with Sortilin to form high affinity receptors for the proneurotrophins. Three Trk family proteins, TrkA, TrkB and TrkC, that exhibit different ligand specificities have been identified. TrkA binds NGF and NT-3, TrkB binds BDNF, NT-3 and NT-4/5, and TrkC binds NT-3 and BDNF. All Trk family proteins share a conserved, complex subdomain organization consisting of two cysteine-rich domains, a cluster of three leucine-rich motifs, and two immunoglobulin-like domains in their extracellular region, as well as an intracellular region that contains a tyrosine kinase domain. 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. At the protein sequence level, Trks are highly conserved between species with the extracellular domains of human and mouse TrkC showing 94% amino acid sequence identity. The proteins also exhibit cross-species activity. The 135-140 kDa full-length form of TrkC has been found in select embryonic tissues (dorsal root ganglia neurons; renal collecting ducts) and multiple adult cell types, including cortical neurons, astrocytes, endothelial cells, vascular smooth muscle cells, melanocytes, ovarian granulosa cells, and neural stem cells.