

Trk A (phospho Tyr496) Polyclonal Antibody

YP1165 Catalog No:

Reactivity: Human; Mouse; Rat

WB;IF;ELISA **Applications:**

Target: Trk A

Fields: >>MAPK signaling pathway;>>Ras signaling pathway;>>Calcium signaling

> pathway;>>PI3K-Akt signaling pathway;>>Apoptosis;>>Neurotrophin signaling pathway;>>Inflammatory mediator regulation of TRP channels;>>Pathways in cancer;>>Transcriptional misregulation in cancer;>>Thyroid cancer;>>Central

carbon metabolism in cancer

Gene Name: NTRK1

Protein Name: High affinity nerve growth factor receptor

Human Gene Id: 4914

Human Swiss Prot

No:

Mouse Gene Id: 18211

Mouse Swiss Prot

No:

Q3UFB7

P35739

P04629

Rat Gene Id: 59109

Rat Swiss Prot No:

The antiserum was produced against synthesized peptide derived from human Immunogen:

Trk A around the phosphorylation site of Tyr496. AA range:471-520

Specificity: Phospho-Trk A (Y496) Polyclonal Antibody detects endogenous levels of Trk A

protein only when phosphorylated at Y496.

Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

1/3



Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500-2000 IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other

applications.

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 140-180kD

Cell Pathway: MAPK_ERK_Growth;MAPK_G_Protein;Endocytosis;Apoptosis_Inhibition;Apopt

osis_Mitochondrial;Apoptosis_Overview;Neurotrophin;Pathways in

cancer; Thyroid cancer;

Background: This gene encodes a member of the neurotrophic tyrosine kinase receptor

(NTKR) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway.

The presence of this kinase leads to cell differentiation and may play a role in specifying sensory neuron subtypes. Mutations in this gene have been associated with congenital insensitivity to pain, anhidrosis, self-mutilating behavior, mental retardation and cancer. Alternate transcriptional splice variants of this gene have been found, but only three have been characterized to date. [provided by RefSeq,

Jul 2008],

Function: alternative products:Both isoforms have similar biological properties,catalytic

activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine

phosphate.,caution:The sequence shown here is derived from an Ensembl

automatic analysis pipeline and should be considered as preliminary

data.,disease:Chromosomal aberrations involving NTRK1 are a cause of thyroid papillary carcinoma (PACT) [MIM:188550]. Intrachromosomal rearrangement that links the protein kinase domain of NTRK1 to the 5'-end of the TPR gene forms the fusion protein TRK-T1. TRK-T1 is a 55 kDa protein reacting with antibodies against the C-terminus of the NTRK1 protein.,disease:Chromosomal aberrations

involving NTRK1 are a cause of thyroid papillary carcinoma (PACT)

[MIM:188550]. Translocation t(1;3)(q21;q11) with TFG generates the TRKT3 (TRK-T3) transcript by fusing TFG to the 3'-end of NTRK1; a rearrangement with

TPM3 gen

Subcellular Location:

Cell membrane; Single-pass type I membrane protein. Early endosome membrane; Single-pass type I membrane protein. Late endosome membrane; Single-pass type I membrane protein. Recycling endosome membrane; Single-

pass type I membrane protein . Rapidly internalized after NGF binding

(PubMed:1281417). Internalized to endosomes upon binding of NGF or NTF3

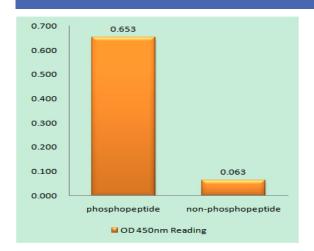


and further transported to the cell body via a retrograde axonal transport. Localized at cell membrane and early endosomes before nerve growth factor (NGF) stimulation. Recruited to late endosomes after NGF stimulation. Colocalized with RAPGEF2 at late endosomes.

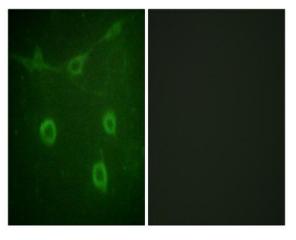
Expression:

Isoform TrkA-I is found in most non-neuronal tissues. Isoform TrkA-II is primarily expressed in neuronal cells. TrkA-III is specifically expressed by pluripotent neural stem and neural crest progenitors.

Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Trk A (Phospho-Tyr496) Antibody



Immunofluorescence analysis of NIH/3T3 cells, using Trk A (Phospho-Tyr496) Antibody. The picture on the right is blocked with the phospho peptide.