

Immunotag™ Trk A Monoclonal Antibody

Antibody Specification	
Catalog No.	ITM0628
Product Description	Immunotag™ Trk A Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled and is not eligible for return.
Target Protein	Trk A
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,IF,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant extracellular fragment of human Trk A (aa33-423) fused with hlgGfc tag expressed in E. coli.
Specificity	Trk A Monoclonal Antibody detects endogenous levels of Trk A protein.
Purification	Affinity purification
Form	Ascitic fluid containing 0.03% sodium azide.
Gene Name	NTRK1
Accession No.	P04629 Q3UFB7
Alternate Names	NTRK1; MTC; TRK; TRKA; High affinity nerve growth factor receptor; Neurotrophic tyrosine kinase receptor; Tyrosine kinase protein; Tropomyosin-related kinase A; Tyrosine kinase receptor; Tyrosine kinase receptor; Tyrosine kinase receptor; Tyrosine kinase receptor

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Description	neurotrophic receptor tyrosine kinase 1(NTRK1) Homo sapiens This gene encodes a member of the neu (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates MAPK pathway. The presence of this kinase leads to cell differentiation and may play a role in specifying Mutations in this gene have been associated with congenital insensitivity to pain, anhidrosis, self-mutila and cancer. Alternate transcriptional splice variants of this gene have been found, but only three have [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	MAPK_ERK_Growth,MAPK_G_Protein,Endocytosis,Apoptosis_Inhibition,Apoptosis_Mitochondrial,Apoptosis in cancer,Thyroid cancer,
Protein Expression	Brain,Colon,Peripheral blood,
Subcellular Localization	endosome,early endosome,late endosome,plasma membrane,integral component of plasma membrane surface,axon,dendrite,cytoplasmic vesicle,early endosome membrane,late endosome membrane,neuronal
Protein Function	Both isoforms have similar biological properties,catalytic activity:ATP + a [protein]-L-tyrosine = ADP + phosphate.,caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and preliminary data.,disease:Chromosomal aberrations involving NTRK1 are a cause of thyroid papillary carcinoma Intrachromosomal rearrangement that links the protein kinase domain of NTRK1 to the 5'-end of the TRK-T1. TRK-T1. TRK-T1 is a 55 kDa protein reacting with antibodies against the C-terminus of the NTRK1 protein aberrations involving NTRK1 are a cause of thyroid papillary carcinoma (PACT) [MIM:188550]. Translocation generates the TRKT3 (TRK-T3) transcript by fusing TFG to the 3'-end of NTRK1; a rearrangement with TRK-T1 by fusing TPM3 to the 3'-end of NTRK1.,disease:Defects in NTRK1 are a cause of congenital insensitivity to pain [MIM:256800]. CIPA is characterized by a congenital insensitivity to pain, anhidrosis (absence of sweating) to noxious stimuli, self-mutilating behavior, and mental retardation. This rare autosomal recessive disorder is associated with sensory neuropathy with anhidrosis or hereditary sensory and autonomic neuropathy type IV or familial insensitivity to pain II.,domain:The extracellular domain mediates interaction with NGFR.,domain:The transmembrane domain mediates interaction with KIDINS220.,function:Required for high-affinity binding to nerve growth factor (NGF), neurotrophin-3 and brain-derived neurotrophic factor (BDNF). Known substrates for the Trk receptors are SHC1, PI 3-kinase, and PLC-gamma-1 in the development and function of the nociceptive reception system as well as establishment of thermosensitivity. Activates ERK1 by either SHC1- or PLC-gamma-1-dependent signaling pathway.,PTM:Ligand-mediated activation with SQSTM1 is phosphotyrosine-dependent.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor superfamily protein kinase domain.,similarity:Contains 2 Ig-like C2-type (immunoglobulin-like) domains.,similarity:Contains 2 Ig-like repeats.,subcellular location:Endocytosed to the endosomes upon treatment of cells with NGF.,subunit:Forms a complex between monomeric (low affinity) and dimeric (high affinity) structures. Binds SH2B2. Interacts with SQSTM1, NGFR. Interacts with KIDINS220 and NGFR. Can form a ternary complex with NGFR and KIDINS220 and KIDINS220 expression levels of KIDINS220. An increase in KIDINS220 expression leads to a decreased association with NGFR.,specificity:Isoform TrkA-II is primarily expressed in neuronal cells; isoform TrkA-I is found in non-neuronal cells
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.