

# Immunotag™ Trk B (phospho Tyr706) Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalog No.            | ITP0270                                                                                                                                                             |
| Product Description    | Immunotag™ Trk B (phospho Tyr706) Polyclonal Antibody                                                                                                               |
| Size                   | 50 µg, 100 µg                                                                                                                                                       |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, 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 from an order and is not eligible for return.  |
| Target Protein         | Trk B (Tyr706)                                                                                                                                                      |
| Clonality              | Polyclonal                                                                                                                                                          |
| Storage/Stability      | -20°C/1 year                                                                                                                                                        |
| Application            | WB,IHC-p,IF,ELISA                                                                                                                                                   |
| Recommended Dilution   | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.        |
| Concentration          | 1 mg/ml                                                                                                                                                             |
| Reactive Species       | Human,Mouse,Rat                                                                                                                                                     |
| Host Species           | Rabbit                                                                                                                                                              |
| Immunogen              | Synthesized phospho-peptide around the phosphorylation site of human Trk B (phospho Tyr706)                                                                         |
| Specificity            | Phospho-Trk B (Y706) Polyclonal Antibody detects endogenous levels of Trk B protein only when phosphorylated at Y706.                                               |
| Purification           | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen                                                |
| Form                   | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                             |
| Gene Name              | NTRK2                                                                                                                                                               |
| Accession No.          | Q16620 P15209 Q63604                                                                                                                                                |
| Alternate Names        | NTRK2; TRKB; BDNF/NT-3 growth factors receptor; GP145-TrkB; Trk-B; Neurotrophic tyrosine kinase receptor type 2; TrkB tyrosine kinase; Tropomyosin-related kinase B |

## Antibody Specification

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| Description                 | neurotrophic receptor tyrosine kinase 2(NTRK2) Homo sapiens This gene encodes a member of the neurotrophic tyrosine receptor kinase (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. Signalling through this kinase leads to cell differentiation. Mutations in this gene have been associated with obesity and mood disorders. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014],                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Cell Pathway/<br>Category   | MAPK_ERK_Growth,MAPK_G_Protein,Neurotrophin,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Protein<br>Expression       | Brain,Corpus callosum,Hippocampus,Plasma,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Subcellular<br>Localization | endosome,cytosol,integral component of plasma membrane,endosome membrane,postsynaptic density,integral component of membrane,terminal bouton,receptor complex,postsynaptic membrane,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Protein Function            | Additional isoforms seem to exist,catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,function:Receptor for brain-derived neurotrophic factor (BDNF), neurotrophin-3 and neurotrophin-4/5 but not nerve growth factor (NGF). Involved in the development and/or maintenance of the nervous system. This is a tyrosine-protein kinase receptor. Known substrates for the TRK receptors are SHC1, PI-3 kinase, and PLC-gamma-1.,PTM:Ligand-mediated auto-phosphorylation.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 Ig-like C2-type (immunoglobulin-like) domains.,similarity:Contains 2 LRR (leucine-rich) repeats.,subunit:Exists in a dynamic equilibrium between monomeric (low affinity) and dimeric (high affinity) structures. Binds SH2B2. Interacts with SQSTM1 and KIDINS220.,tissue specificity:Isoform TrkB is widely expressed, mainly in the nervous tissue. In the CNS, expression is observed in the cerebral cortex, hippocampus, thalamus, choroid plexus, granular layer of the cerebellum, brain stem, and spinal cord. In the peripheral nervous system, it is expressed in many cranial ganglia, the ophtalmic nerve, the vestibular system, multiple facial structures, the submaxillary glands, and dorsal root ganglia. Isoform TrkB-T1 is expressed in multiple tissues, mainly in brain, pancreas, kidney and heart. Isoform TrkB-T-Shc is predominantly expressed in brain., |
| Usage                       | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |