

## Product datasheet for TP526130

### Ntrk2 (NM\_001025074) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse neurotrophic tyrosine kinase, receptor, type 2 (Ntrk2), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR226130 representing NM_001025074 <span style="color: red;">Red</span> =Cloning site <span style="color: green;">Green</span> =Tags(s)

MSPWLKWHGPAMARLWGLCLLVLGFWRASLACPTSCCKSSARIWCTEPPSGIVAFPRLEPNSVDPENITE  
 ILIANQKRLEIINEDDVEAYVGLRNLTIVDSGLKFVAYKAFLKNSNLRHINFTRNKLTSLSRHRHRLDL  
 SDLILTGNPFTCSCDIMWLKTLQETKSSPDTQDLYCLNESSKNMPLANLQIPNCGLPSARLAAPNLVVEE  
 GKSVTLSCSVGGDPLPTLYWDVGNLVSKHNMNETSHTQGSLRITNISSDDSGKQISCVAENLVGEDQDSVN  
 LTVHFAPTITFLESPTSDHHWCIPFTVRGNPKPALQWFYNGAILNESKYICTKIHVNTNHTTEYHGCLQLDN  
 PTHMNNGDYTLMAKNEYGKDERQISAHFMGRPGVDYETNPNYPEVLYEDWTTPTDIGDTTNKSNEIPST  
 D  
 VADQSNREHLSVYAVVVIASVVGFCLLVMLLLLKLARHSKFGMKGPASVISNDDDSASPLHHISNGSNTP  
 SSSEGGPDAVIIGMTKIPVIENPQYFGITNSQLKPDFTVQHIKRHNIVLKRELGEAGFKVFLAECYNLC  
 PEQDKILVAVKTLKDASDNARKDFHREAELLTNLQHEHIVKFYGVCEGDPLIMVFEYMKHGDNLNKLFLRA  
 HGPDAVLMAEGNPTELTQSQMLHIAQQAAGMVYLASQHFVHRDLATRNCLVGENLLVKIGDFGMSR  
 DV  
 YSTDYYRVGGHTMLPIRWMPPEMIMYRKFTTESDVWSLGVWLWEIFTYGKQPWYQLSNNEVICITQGRV  
 LQRPRTCPQEVYELMLGCWQREPHTRKNIKSIHTLLQNLAKASPVYLDILG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	92.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol


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<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_001020245</a>
<b>Locus ID:</b>	18212
<b>UniProt ID:</b>	<a href="#">P15209</a>
<b>RefSeq Size:</b>	4614
<b>Cytogenetics:</b>	13 31.2 cM
<b>RefSeq ORF:</b>	2463
<b>Synonyms:</b>	GP145-TrkB/GP95-TrkB; Tkrb; trk-B; trkB
<b>Summary:</b>	<p>Receptor tyrosine kinase involved in the development and the maturation of the central and the peripheral nervous systems through regulation of neuron survival, proliferation, migration, differentiation, and synapse formation and plasticity. Receptor for BDNF/brain-derived neurotrophic factor and NTF4/neurotrophin-4. Alternatively can also bind NTF3/neurotrophin-3 which is less efficient in activating the receptor but regulates neuron survival through NTRK2. Upon ligand-binding, undergoes homodimerization, autophosphorylation and activation. Recruits, phosphorylates and/or activates several downstream effectors including SHC1, FRS2, SH2B1, SH2B2 and PLCG1 that regulate distinct overlapping signaling cascades. Through SHC1, FRS2, SH2B1, SH2B2 activates the GRB2-Ras-MAPK cascade that regulates for instance neuronal differentiation including neurite outgrowth. Through the same effectors controls the Ras-PI3 kinase-AKT1 signaling cascade that mainly regulates growth and survival. Through PLCG1 and the downstream protein kinase C-regulated pathways controls synaptic plasticity. Thereby, plays a role in learning and memory by regulating both short term synaptic function and long-term potentiation. PLCG1 also leads to NF-Kappa-B activation and the transcription of genes involved in cell survival. Hence, it is able to suppress anoikis, the apoptosis resulting from loss of cell-matrix interactions. Isoform GP95-TRKB may also play a role in neurotrophin-dependent calcium signaling in glial cells and mediate communication between neurons and glia.</p> <p>[UniProtKB/Swiss-Prot Function]</p>