TrkB Protein, Mouse (398a.a, HEK293, His)

Cat. No.:	HY-P72436
Synonyms:	BDNF/NT-3 Growth Factors Receptor; GP145-TrkB; Trk-B; Neurotrophic Tyrosine Kinase Receptor Type 2; TrkB Tyrosine Kinase; NTRK2; TRKB
Species:	Mouse
Source:	HEK293
Accession:	P15209 (C32-H429)
Gene ID:	18212
Molecular Weight:	60-90 kDa

PROPERTIES

AA Sequence	C P T S C K C S S A R I W C T E P S P G I V A F P R L E P N S V D P E N I T E I L I A N Q K R L E I I N E D D V E A Y V G L R N L T I V D S G L K F V A Y K A F L K N S N L R H I N F T R N K L T S L S R R H F R H L D L S D L I L T G N P F T C S C D I M W L K T L Q E T K S S P D T Q D L Y C L N E S S K N M P L A N L Q I P N C G L P S A R L A A P N L T V E E G K S V T L S C S V G G D P L P T L Y W D V G N L V S K H M N E T S H T Q G S L R I T N I S S D D S G K Q I S C V A E N L V G E D Q D S V N L T V H F A P T I T F L E S P T S D H H W C I P F T V R G N P K P A L Q W F Y N G A I L N E S K Y I C T K I H V T N H T E Y H G C L Q L D N P T H M N N G D Y T L M A K N E Y G K D E R Q I S A H F M G R P G V D Y E T N P N Y P E V L Y E D W T T P T D I G D T T N K S N E I P S T D V A D Q S N R E H
Biological Activity	1.Measured in a cell proliferation assay using SH-SY5Y human neuroblastoma cells. The ED_{50} this effect is 0.5971 μg/ml, corresponding to a specific activity is 1674.76 units/mg. 2.Measured by its binding ability in a functional ELISA. Immobilized recombinant Mouse/Human BDNF Protein (Native) at 10 μg/mL (100 μl/well) can bind biotinylated mouse TrkB-His with a linear range of 10-80 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 or 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	TrkB protein, also known as tropomyosin receptor kinase B, is composed of a non-catalytic isoform. Unlike its catalytic isoform, the non-catalytic isoform of TrkB lacks intrinsic kinase activity. The catalytic isoform of TrkB is responsible for initiating signaling cascades upon activation by its ligands, such as brain-derived neurotrophic factor (BDNF). However, the non-catalytic isoform of TrkB is believed to modulate the activity of the catalytic isoform and regulate its signaling pathways. While the precise role of the non-catalytic isoform of TrkB is still being investigated, it is thought to play a regulatory role in various cellular processes, particularly in neuronal development and synaptic plasticity. Further research is needed to fully elucidate the functional significance of the non-catalytic isoform of TrkB and its contribution to neuronal function.

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