ARG81761
Mouse TrkB ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG81761-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG81761-002	Standard	2 X 10 ng/vial	4°C
ARG81761-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG81761-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG81761-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG81761-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG81761-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG81761-008	25X Wash buffer	20 ml	4°C
ARG81761-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG81761-010	STOP solution	10 ml (Ready to use)	4°C
ARG81761-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG81761 Mouse TrkB ELISA Kit is an Enzyme Immunoassay kit for the quantification of Mouse TrkB in cell culture supernatants.
Tested Reactivity	Ms
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	TrkB
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	46.9 pg/ml
Sample Type	Cell culture supernatants.
Standard Range	93.8 - 6000 pg/ml
Sample Volume	100 µl

Precision	Intra-Assay CV: 6.6%; Inter-Assay CV: 7.0%
Alternate Names	TRKB; Neurotrophic tyrosine kinase receptor type 2; Trk-B; trk-B; Tropomyosin-related kinase B; TrkB tyrosine kinase; BDNF/NT-3 growth factors receptor; GP145-TrkB; EC 2.7.10.1

Application Instructions

Assay Time	~ 5 hours

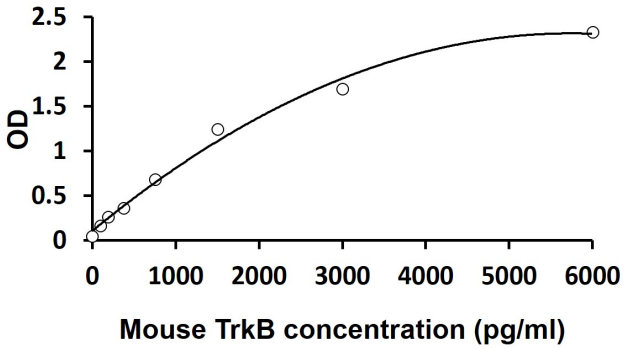
Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	NTRK2
Gene Full Name	neurotrophic tyrosine kinase, receptor, type 2
Background	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]
Function	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. May also play a role in neutrophin-dependent calcium signaling in glial cells and mediate communication between neurons and glia. [UniProt]
Highlight	Related products: Trk antibodies; Trk ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	Phosphorylated. Undergoes ligand-mediated autophosphorylation that is required for interaction with SHC1 and PLCG1 and other downstream effectors. Isoform TrkB-T-Shc is not phosphorylated. Ubiquitinated. Undergoes polyubiquitination upon activation; regulated by NGFR. Ubiquitination regulates the internalization of the receptor (By similarity). [UniProt]

Images



ARG81761 Mouse TrkB ELISA Kit standard curve image

ARG81761 Mouse TrkB ELISA Kit results of a typical standard run with optical density reading at 450 nm.