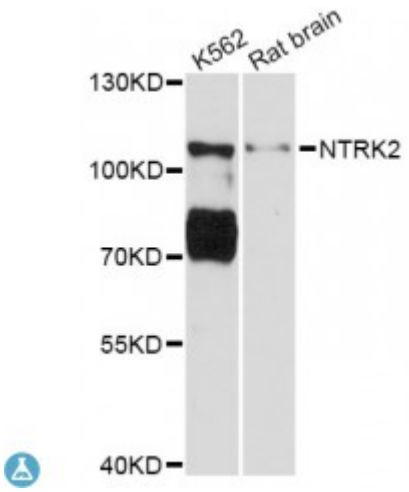
Anti-NTRK2 Antibody



Description	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.
Model	STJ113913
Host	Rabbit
Reactivity	Human, Rat
Applications	IHC, WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 41-433 of human NTRK2 (NP_001007098.1).
Gene ID	4915
Gene Symbol	NTRK2
Dilution range	WB 1:500 - 1:2000 IHC 1:50 - 1:200
Tissue Specificity	Isoform TrkB is expressed in the central and peripheral nervous system, In the central nervous system (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 ophthalmic nerve, the vestibular system, multiple facial structures, the submaxillary glands, and dorsal root ganglia, Isoform TrkB-T1 is mainly expressed in the brain but al

Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	BDNF/NT-3 growth factors receptor
Molecular Weight	91.999 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:8032OMIM:600456Reactome:R-HSA-187024
Alternative Names	BDNF/NT-3 growth factors receptor
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,
Cellular Localization	Cell membrane
Post-translational Modifications	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,