

ARG51798 anti-TrkA phospho (Ser791) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes TrkA phospho (Ser791)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	TrkA
Species	Human
Immunogen	Peptide sequence around phosphorylation site of tyrosine791 (P-V-Y(p)-L-D) derived from Human TrkA.
Conjugation	Un-conjugated
Alternate Names	TRK; High affinity nerve growth factor receptor; Neurotrophic tyrosine kinase receptor type 1; TRKA; Tyrosine kinase receptor A; p140-TrkA; Trk-A; Tropomyosin-related kinase A; TRK1-transforming tyrosine kinase protein; TRK1; gp140trk; MTC; Tyrosine kinase receptor; EC 2.7.10.1

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:100 - 1:200
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

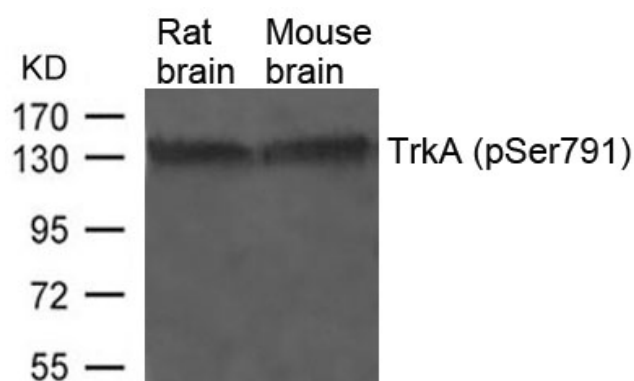
Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (without Mg ²⁺ and Ca ²⁺ , pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

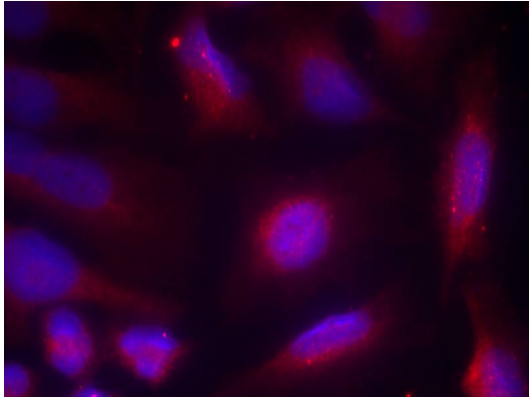
Gene Symbol	NTRK1
Gene Full Name	neurotrophic tyrosine kinase, receptor, type 1
Background	Required for high-affinity binding to nerve growth factor (NGF), neurotrophin-3 and neurotrophin-4/5 but not brain-derived neurotrophic factor (BDNF). Known substrates for the Trk receptors are SHC1, PI 3-kinase, and PLC-gamma-1. Has a crucial role in the development and function of the nociceptive reception system as well as establishment of thermal regulation via sweating. Activates ERK1 by either SHC1- or PLC-gamma-1-dependent signaling pathway.
Function	Receptor tyrosine kinase involved in the development and the maturation of the central and peripheral nervous systems through regulation of proliferation, differentiation and survival of sympathetic and nervous neurons. High affinity receptor for NGF which is its primary ligand, it can also bind and be activated by NTF3/neurotrophin-3. However, NTF3 only supports axonal extension through NTRK1 but has no effect on neuron survival. Upon dimeric NGF 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 driving cell survival and differentiation. Through SHC1 and FRS2 activates a GRB2-Ras-MAPK cascade that regulates cell differentiation and survival. Through PLCG1 controls NF-Kappa-B activation and the transcription of genes involved in cell survival. Through SHC1 and SH2B1 controls a Ras-PI3 kinase-AKT1 signaling cascade that is also regulating survival. In absence of ligand and activation, may promote cell death, making the survival of neurons dependent on trophic factors. Isoform TrkA-III is resistant to NGF, constitutively activates AKT1 and NF-kappa-B and is unable to activate the Ras-MAPK signaling cascade. Antagonizes the anti-proliferative NGF-NTRK1 signaling that promotes neuronal precursors differentiation. Isoform TrkA-III promotes angiogenesis and has oncogenic activity when overexpressed. [UniProt]
Research Area	Cancer antibody; Neuroscience antibody
Calculated Mw	87 kDa
PTM	Ligand-mediated autophosphorylation (PubMed:2927393, PubMed:1281417, PubMed:15488758, PubMed:7510697, PubMed:8155326, PubMed:8325889, PubMed:27676246). Interaction with SQSTM1 is phosphotyrosine-dependent. Autophosphorylation at Tyr-496 mediates interaction and phosphorylation of SHC1 (PubMed:15488758, PubMed:7510697, PubMed:8155326, PubMed:8325889). N-glycosylated (PubMed:2927393). Isoform TrkA-I and isoform TrkA-II are N-glycosylated. Ubiquitinated. Undergoes polyubiquitination upon activation; regulated by NGFR. Ubiquitination regulates the internalization of the receptor.

Images



ARG51798 anti-TrkA phospho (Ser791) antibody WB image

Western blot: Extracts from Rat and Mouse brain tissue stained with ARG51798 anti-TrkA phospho (Ser791) antibody.



ARG51798 anti-TrkA phospho (Ser791) antibody ICC/IF image

Immunofluorescence: methanol-fixed HeLa cells stained with ARG51798 anti-TrkA phospho (Ser791) antibody.