BOSTER BIOLOGICAL TECHNOLOGY
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Anti-NTRK2 Antibody

Catalog Number: M01388

About NTRK2

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.

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Overview

Product Name	Anti-NTRK2 Antibody
Reactive Species	Human
Description	Boster Bio Anti-NTRK2 Antibody (Catalog # M01388). Tested in WB, Flow Cytometry, IHC-P application(s). This antibody reacts with Human.
Application	Flow Cytometry, IHC-P, WB
Clonality	Monoclonal 1446CT494.85.83.49
Formulation	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	Maintain refrigerated at 2-8°C for up to 2 weeks. For long-term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Host	Mouse
Uniprot ID	Q16620

Technical Details

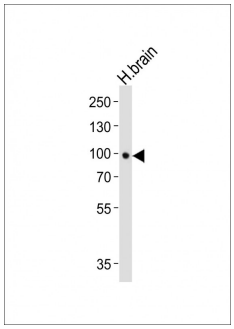
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antibody and ELISA experts

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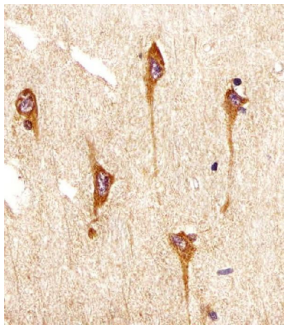
Immunogen	This NTRK2 antibody is generated from a mouse immunized with a recombinant protein.
Predicted Reactive Species	Bovine, Chicken, Horse, Monkey, Pig, Sheep, Xenopus
Isotype	IgG1,k
Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Suggested Dilutions	WB: 1:1000 IHC-P: 1:25 FC: 1:25 Tested Species: In-house tested species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.

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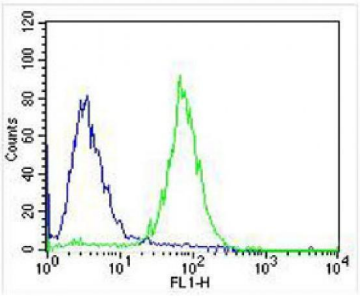
Anti-NTRK2 Antibody (M01388) Images



Western blot analysis of lysate from human brain tissue lysate, using NTRK2 Antibody. M01388 was diluted at 1:1000. A goat anti-mouse IgG H&L (HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



M01388 staining NTRK2 in human brain sections by Immunohistochemistry (IHC-P -paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing SH-SY5Y cells stained with M01388 (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (M01388, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was mouse IgG1 (1g/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

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