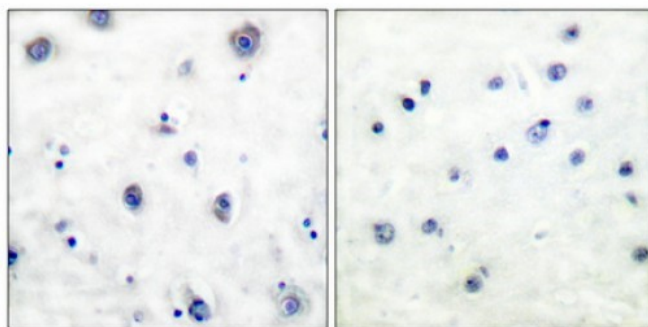
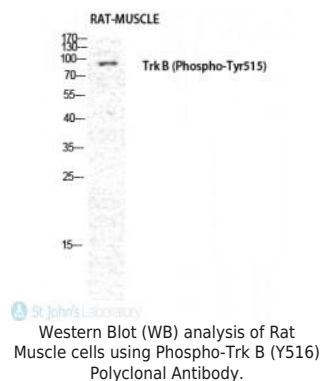


|                          |                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Product name:</b>     | Phospho-Trk B (Y516)                                                                                                 |
| <b>Cat number:</b>       | ABP-9240                                                                                                             |
| <b>Conjugate:</b>        | Unconjugated                                                                                                         |
| <b>Size:</b>             | 100 ug                                                                                                               |
| <b>Clone:</b>            | Poly                                                                                                                 |
| <b>Concentration:</b>    | 1mg/ml                                                                                                               |
| <b>Host:</b>             | Rb                                                                                                                   |
| <b>Isotype:</b>          | IgG                                                                                                                  |
| <b>Immunogen:</b>        | Synthesized peptide derived from human Trk B around the phosphorylation site of Y516.                                |
| <b>Reactivity:</b>       | Hu, Ms, Rt                                                                                                           |
| <b>Applications:</b>     | Western Blot: 1:500-1:2000 Immunohistochemistry: 1:100-1:300 ELISA: 1:5000                                           |
| <b>Molecular Weight:</b> | 92/145 kDa                                                                                                           |
| <b>Purification:</b>     | The antibody was affinity-purified from rabbit antiserum by affinitychromatography using epitope-specific immunogen. |
| <b>Form:</b>             | liquid                                                                                                               |
| <b>Buffer:</b>           | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                              |
| <b>Storage:</b>          | Store at -20°C. Avoid freeze / thaw cycles                                                                           |

**Background:**

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 neurotrophin-dependent calcium signaling in glial cells and mediate communication between neurons and glia. Phospho-Trk B (Y516) Polyclonal Antibody detects endogenous levels of Trk B protein only when phosphorylated at Y516. 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.



St. John's Laboratory

Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antibody retrieval. Negative contrl (right) obtained from antibody was pre-abso.