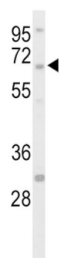
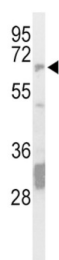
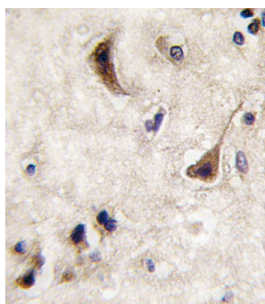


STEP / PTPN5 Antibody

Catalogue No.: abx033947



STEP (striatum-enriched phosphatase) is a neural-specific protein-tyrosine phosphatase, first isolated from the rat brain. The 537-amino acid predicted human protein as isolated from cDNA sequences is between 85 and 90% identical to the mouse and rat sequences. In rat neuronal cell cultures, glutamate-mediated activation of N-methyl-D-aspartate (NMDA) receptors leads to the rapid but transient phosphorylation of extracellular signal-related kinase-2 (ERK2). NMDA-mediated influx of calcium, activates the calcium-dependent phosphatase calcineurin and the resulting dephosphorylation and activation of STEP. STEP then inactivates ERK2 through tyrosine dephosphorylation and blocks translocation of the kinase to the nucleus. STEP plays a significant role in regulating the ERK activation and downstream signaling in neurons.

Target:	STEP/PTPN5
Clonality:	Polyclonal
Reactivity:	Human, Mouse
Tested Applications:	ELISA, WB, IHC

Datasheet

Version: 2.0.0
Revision date: 13 Sep 2025



Host:	Rabbit
Recommended dilutions:	WB: 1/1000, IHC-P: 1/10 - 1/50. Not tested in IHC-F. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated
Immunogen:	KLH-conjugated synthetic peptide between 168-198 amino acids from the N-terminal region of human STEP / PTPN5.
Isotype:	IgG
Form:	Liquid
Purification:	Purified through a protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	P54829 (UniProt , ExPASy)
NCBI Accession:	NP_001035059.1, NP_001265165.1, NP_001265167.1, NP_001265168.1, NP_008837.1, NP_116170.3
KEGG:	hsa:84867
String:	9606.ENSP00000351342
Molecular Weight:	Calculated MW: 63.5 kDa
Buffer:	PBS containing 0.09% sodium azide.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.