

PTPN5 Antibody

Catalog # ASC11866

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q86TL6
Other Accession	NP_008837 , 90652859
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	62 KDa
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PTPN5 antibody can be used for detection of PTPN5 by Western blot at 1 - 2 μ g/ml. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	84867
Target/Specificity	PTPN5; PTPN5 antibody is human and mouse reactive.
Reconstitution & Storage	PTPN5 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	PTPN5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Background

The protein tyrosine phosphatase PTPN5, also known as Striatal enriched phosphatase (STEP), is involved in the regulation of synaptic plasticity and neuronal cell survival, including MAPKs, Src family kinases and NMDA receptors (1). It is expressed in dopaminergic neurons of the central nervous system and multiple forms of PTPN5 show differential enrichment in adult brain regions (2). NMDA-mediated activation of PTPN5 is an important mechanism for regulation of Erk activity in neurons (3). Furthermore, PTPN5 is involved in the regulation of both NMDAR and AMPAR trafficking (4,5). PTPN5 may play a role in Alzheimer's disease (1).

References

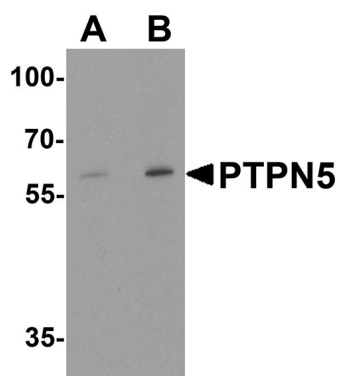
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Paul S, Snyder GL, Yokakura H, et al. The Dopamine/D1 receptor mediates the phosphorylation and inactivation of the protein tyrosine phosphatase STEP via a PKA-dependent pathway. *J. Neurosci.* 2000; 20:5630-8.

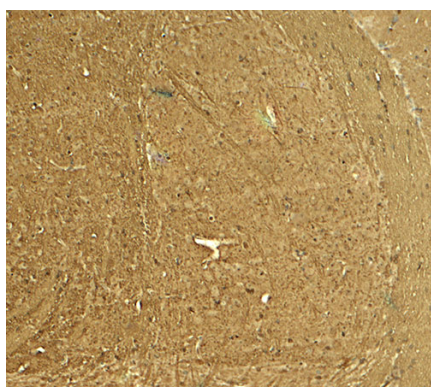
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Braithwaite SP, Adkisson M, Leung J, et al. Regulation of NMDA receptor trafficking and function by striatal-enriched tyrosine phosphatase (STEP). *Eur. J. Neurosci.* 2006; 23:2847-56.

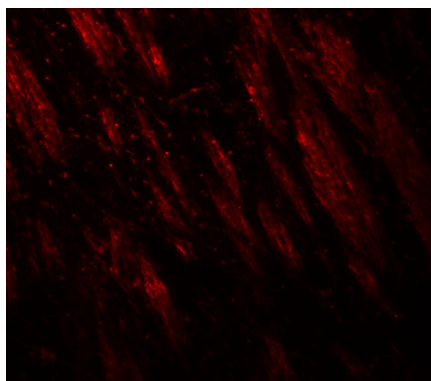
Images



Western blot analysis of PTPN5 in Jurkat cell lysate with PTPN5 antibody at (A) 1 and (B) 2 μ g/ml.



Immunohistochemistry of PTPN5 in mouse brain tissue with PTPN5 antibody at 5 μ g/ml.



Immunofluorescence of PTPN5 in mouse brain tissue with PTPN5 antibody at 20 μ g/ml.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.