

Product datasheet for **RC217371**

PTPN5 (NM_032781) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PTPN5 (NM_032781) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PTPN5
Synonyms:	PTPSTEP; STEP; STEP61
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC217371 representing NM_032781
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATTATGAGGAGCCAGGAGTGAGAGAGAGAACCACGCTGCTGATGACTCCGAGGGAGGGCCCTGG
 ACATGTGCTGCAGTGAGAGGCTACCGGGTCTCCCCAGCCGATAGTGATGGAGGCACTGGACGAGGCTGA
 AGGGCTCCAGGACTCACAGAGAGATGCCGCCACCCCTCCTCCCTCGCCGCCCTCAGATCCAGCTCAG
 AAGCCACCACCTCGAGGCGCTGGGAGCCACTCCCTCACTGTCAGGAGCAGCCTGTGCCTGTTTCGCTGCCT
 CACAGTTCCTGCTGCTGTGGGGTCTCTGGTTCAGCGGTTATGGCCACATCTGGTCACAGAACGCCAC
 AAACCTCGTCTCCTTTTGTGACGCTCCTGAAACAGCTGGAACCCACGGCCTGGCTTGACTCTGGGACG
 TGGGGAGTCCCAGTCTGCTGCTGGTCTTTCTGTCCGTGGGCCTGGTCTCGTTACCACCCTGGTGTGGC
 ACCTCCTGAGGACACCCAGAGCCACCCACCCACTGCCCTGAGGACAGGCGCCAGTCACTGAGCCG
 CCAGCCCTCCTTACCTACTCAGAGTGGATGGAGGAGAAGATCGAGGATGACTTCTGGACTCGACCCG
 GTGCCGAGACTCCTGTGTTGATTGTGTGATGGACATCAAGCCTGAGGCTGACCCACCTCACTACCCG
 TCAAGTCCATGGGTCTGCAGGAGAGGAGGGTTCCAATGTCTCCCTGACCTGGACATGTGCACTCCGGG
 CTGCAACGAGGAGGGCTTTGGCTATCTCATGTCCACAGTGGAGGAGTCCGCCCGGAGTACCTGCTCAGC
 GCCTCCCGTGTCTCCAAGCAGAAGAGCTTCATGAAAAGGCCCTGGACCTTTCTGCTGCAGGCGGAAT
 TCTTTGAAATCCCATGAACTTTGTGGATCCGAAAAGAGTACGACATCCCTGGGCTGGTGCAGGAAACCG
 GTACAAAACATACTTCCCAACCCTCACAGCAGAGTGTGTCTGACCTCACCAGACCCTGACGACCCTCTG
 AGTTCCTACATCAATGCCAACTACATCCGGGCTATGGTGGGGAGGAGAAGGTGTACATGCCACTCAGG
 GACCCATCGTCAGCACGGTCGCGCACTTCTGGCGCATGGTGTGGCAGGAGCACAGCCCATCATTTGTCAT
 GATCACCAACATCGAGGAGATGAACGAGAAATGCACCGAGTATTGGCCGGAGGAGCAGGTGGCGTACGAC
 GGTGTTGAGTACTGTGCAGAAAGTCATTACACGAGGATTACCGGCTGCGACTCATCTCCCTCAAGA
 GTGGGACTGAGGAGCGAGGCCTGAAGCATTACTGGTTCACATCCTGGCCCGACCAGAAGACCCAGACCG
 GGCCCCCCTACTCCTGCACCTGGTGCAGGAGGTGGAGGAGGAGCCAGCCAGGAGGGGCCCTACTGTGCC
 CCCATCATCGTCCACTGCAGTGCAGGGATTGGGAGGACCGGCTGCTTATTGCCACCAGCATCTGCTGCC
 AGCAGCTGCGGCAGGAGGTGTAGTGGACATCCTGAAGACCACGTGCCAGCTCCGTGAGGACAGGGGCGG
 CATGATCCAGACATGCGAGCAGTACCAGTTTGTGACCACGTGATGACCTCTACGAAAAGCAGCTGTCC
 CACCAGTCCCAGAA

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217371 representing NM_032781
 Red=Cloning site Green=Tags(s)

MNYEGARSERENHAADDSEGGALDMCCSERLPGLPQPIVMEALDEAEGLDQSQREMPPPPPSPSDPAQ
 KPPPRGAGSHSLTVRSSLCLFAASQFLLACGVLWFSYGHYIWSQATNLVSSLLTLKQLEPTAWLDSGT
 WGVPSLLLVLVSVGLVLTTLVWHLRLTPPEPTPLPPEDRRQSVSRQPSFTYSEWMEEKIEDDFLDLDP
 VPETPVFDCVMDIKPEADPTSLTVKSMGLQERRGSNVSLTDMCTPGCNEEGFYLMSPREESAREYLLS
 ASRVLQAEELHEKALDPFLLQAEFFEIPMNFVDPKEYDIPGLVRKNRYKTILPNPHSRVCLTSPDPDDPL
 SSYINANYIRGYGEEKVYIATQGPVIVSTVADFWRMVWQEHTPIIVMITNIEEMNEKCTEYWPVEQVAYD
 GVEITVQKVIHTEDYRLRLISLKSGETEERGLKHYWFTSWPDQKTPDRAPLLHLVREVEEAQQEGPHCA
 PIIVHCSAGIGRTGCFIATSICCCQLRQEGVVDILKTTCCQLRQDRGMIQTCEQYQFVHHVMSLYEKQLS
 HQSPE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6049_h09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_032781

ORF Size: 1695 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_032781.4](#)

RefSeq Size: 2965 bp

RefSeq ORF: 1698 bp

Locus ID: 84867

UniProt ID: [P54829](#)

Cytogenetics: 11p15.1

Domains: Y_phosphatase, PTPc_motif

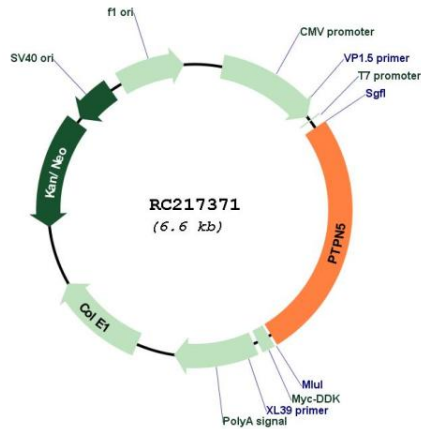
Protein Families: Druggable Genome, Phosphatase, Transmembrane

Protein Pathways: MAPK signaling pathway

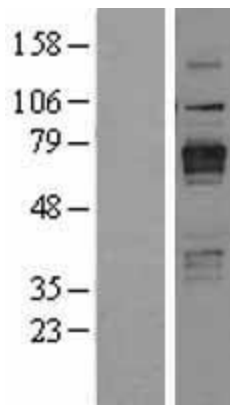
MW: 63.4 kDa

Gene Summary: May regulate the activity of several effector molecules involved in synaptic plasticity and neuronal cell survival, including MAPKs, Src family kinases and NMDA receptors. [UniProtKB/Swiss-Prot Function]

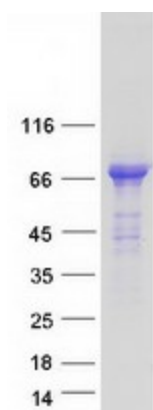
Product images:



Circular map for RC217371



Western blot validation of overexpression lysate (Cat# [LY403199]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217371 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PTPN5 protein (Cat# [TP317371]). The protein was produced from HEK293T cells transfected with PTPN5 cDNA clone (Cat# RC217371) using MegaTran 2.0 (Cat# [TT210002]).