

## Product datasheet for **RC207952**

### **PTPN12 (NM\_002835) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PTPN12 (NM_002835) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PTPN12
Synonyms:	PTP-PEST; PTPG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC207952 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGAGCAAGTGGAGATCCTGAGAAATTCATCCAGAGGGTCCAGGCCATGAAGAGTCTGACCACAATG  
GGGAGGACAACCTCGCCCGGACTTCATGCGGTTAAGAAGATTGTCTACCAAATATAGAACAGAAAAGAT  
ATATCCACAGCCACTGGAGAAAAAGAAGAAATGTTAAAAAGAACAGATACAAGGACATACTGCCATTT  
GATCACAGCCGAGTTAAATTGACATTAAGACTCCTTCACAAGATTCAGACTATATCAATGCAAATTTTA  
TAAAGGGCGTCTATGGGCCAAAAGCATGTAGCAACTCAAGGACCTTTAGCAAATACAGTAATAGATTT  
TTGGAGGATGATATGGGAGTATAATGTTGTGATCATTGTAATGGCCTGCCGAGAATTTGAGATGGGAAGG  
AAAAATGTGAGCGCTATTGGCCTTTGTATGGAGAAGACCCCATAACGTTTGACCATTTAAATTTCTT  
GTGAGGATGAACAAGCAAGAACAGACTACTTCATCAGGACTCTTACTTGAATTTCAAATGAATCTCG  
TAGGCTGTATCAGTTTCATTATGTGAATGGCCAGACCATGATGTTCTTCATCATTGATTCTATTCTG  
GACATGATAAGCTTAATGAGGAAATATCAAGAACATGAAGATGTTCTATTTGTATTTCATTGCAGTGCAG  
GCTGTGGAAGAACAGGTGCCATTTGTGCCATAGATTATACGTGGAATTTACTAAAAGCTGGGAAAATACC  
AGAGGAATTTAATGTATTTAATTAACAAGAAATGAGAACACAAAGGCATTCTGCAGTACAAACAAAAG  
GAGCAATATGAACCTGTTTCATAGAGCTATTGCCCAACTGTTTGAAAAACAGCTACAACTATATGAAATTC  
ATGGAGCTCAGAAAATGCTGATGGAGTGAATGAAATTAACACTGAAAACATGATCAGCTCCATAGAGCC  
TGAAAAACAAGATTCTCCTCCTCCAAAACCAAGGACCCGAGTTGCCTTGTGAAGGGGATGCTAAA  
GAAGAAACTACTGCAGCCACCGGAACCTCATCCAGTGCCACCCATCTTGACACCTTCTCCCTTCAGCTT  
TTCCAACAGTCACTACTGTGTGGCAGGACAATGATAGTACCATCCAAAGCCAGTGTTCATATGGTTTC  
ATCAGAACAACATTCAGCAGACCTCAACAGAAACTATAGTAAATCAACAGAACTTCAGGGAAAAATGAA  
TCAACAATTGAACAGATAGATAAAAAATTTGAACGAAATTTAAGTTTTGAGATTAGAAGGTCCCTCTCC  
AAGAGGGACCAAAAAGTTTTGATGGGAACACACTTTTGAATAGGGGACATGCAATTTAAATTAATCTGC  
TTCACCTTGATAGCTGATAAAATCTCTAAGCCACAGGAATTAAGTTCAGATCTAAATGTCGGTGATACT  
TCCCAGAATTCTGTGTGGACTGCAGTGTAAACAATCAAACAAAGTTTCAGTTACTCCACCAGAAGAAAT  
CCCAGAATTCAGACACACCTCCAAGGCCAGACCGCTTGCCTCTTGATGAGAAAGGACATGTAACGTGGTC  
ATTTTCATGGACCTGAAAATGCCATACCCATACCTGATTTATCTGAAGGCAATTCCTCAGATATCAACTAT  
CAAAGTAAAGAACTGTGAGTTTAAACCAAGTCTACAACACAAGTTGAAACACCTGATCTTGTGGATC  
ATGATAACACTTCACCACTCTTCAGAACACCCCTCAGTTTTACTAATCCACTTCACTCTGATGACTCAGA  
CTCAGATGAAAGAACTCTGATGGTGTGTGACCCAGAATAAACTAATATTTCAACAGCAAGTGCCACA  
GTTTCTGCTGCCACTAGTACTGAAAGCATTCTACTAGGAAAGTATTGCCAATGTCCATTGCTAGACATA  
ATATAGCAGGAACAACACATTCAGGTGCTGAAAAAGATGTTGATGTTAGTGAAGATTCACCTCCTCCCT  
ACCTGAAAGAACTCCTGAATCGTTTGTGTTAGCAAGTGAACATAATACACCTGTAAGATCGGAATGGAGT  
GAATTTCAAAGTCAGGAACGATCTGAACAAAAAAGTCTGAAGGCTTGATAACCTCTGAAAATGAGAAAT  
GTGATCATCCAGCGGGAGGTATTCATATGAAATGTGCATAGAATGTCCACCTACTTTTCAGTGACAAGAG  
AGAACAAATATCAGAAAATCCAACAGAAGCCACAGATATTGGTTTTGGTAATCGATGTGGAAAACCCAAA  
GGACCAAGAGATCCACCTTCAGAATGGACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC207952 protein sequence  
Red=Cloning site Green=Tags(s)

MEQVEILRKFIQRVQAMKSPDHNGEDNFARDFMRLRRLSTKYRTEKIYPTATGEKEENVKKNRYKDILPF  
DHSRVKLTLPKTPSQSDYINANFIKGVYGPAYVATQGPLANTVIDFWRMIWEYNVVIIVMACREFEMGR  
KKCERYWPLYGEDPITFAPFKISCEDEQARTDYFIRTLLEFQNESRRLYQFHVYNWPDHDPSSFDLIL  
DMISLMRKYQEHEDVPICIHCSAGCGRTGAICAIDYTNLLKAGKIPPEEFNVFNLIQEMRTQRHSAVQTK  
EQYELVHRAIAQLFEKQLQLEYIHGAQKIADGVNEINTENMISSIEPEKQDSPPPKPPRTRSCLEVGDAK  
EEILQPPEPHVPPILTPSPSAFPTVTTVWQDNDRYHHPKPVLMVSSSEQHSADLNRNYSKSTELPGKNE  
STIEQIDKKLERNLSFEIKKVPLQEGPKSFDGNTLLNRGHAIKIKSASPCIADKISKPQELSSDLNVGDT  
SQNSCVDCSVTQSNKVSVPPEESQNSDTPPRPDRLPLDEKGHVTSFHGPENAIPIPDLSEGNSSDINY  
QTRKTVSLTPSPTTQVETPDLVDHDNTSPLFRTPLSFTNPLHSDSDSDERNSDGAVTQNKTNISTASAT  
VSAATSTESISTRKVLPMIARHNIAGTTHSGAEKDVDVSEDSPPPLPERTPESFVLASEHNTPVREWS  
ELQSQRSEQKKSEGLITSENEKCDHPAGGIHYEMCIECPPTFSDKREQISENPTEATDIGFGNRCGKPK  
GPRDPPSEWT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6272\\_g06.zip](https://cdn.origene.com/chromatograms/mk6272_g06.zip)

**Restriction Sites:** Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_002835

ORF Size: 2340 bp

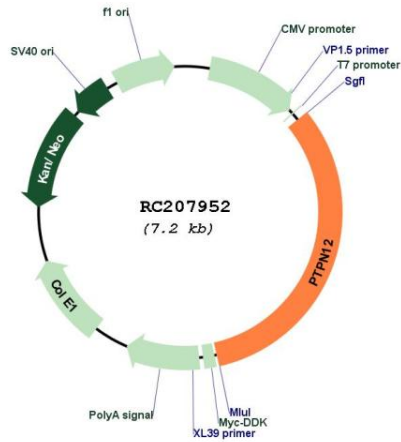
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

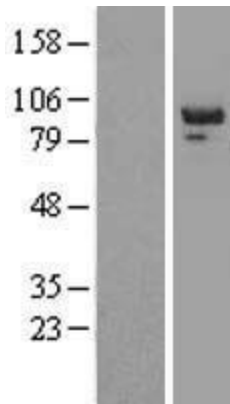
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_002835.2</a> , <a href="#">NP_002826.2</a>
<b>RefSeq Size:</b>	3240 bp
<b>RefSeq ORF:</b>	2343 bp
<b>Locus ID:</b>	5782
<b>UniProt ID:</b>	<a href="#">Q05209</a>
<b>Cytogenetics:</b>	7q11.23
<b>Domains:</b>	Y_phosphatase, PTPc_motif
<b>Protein Families:</b>	Druggable Genome, Phosphatase
<b>MW:</b>	88.1 kDa
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains a C-terminal PEST motif, which serves as a protein-protein interaction domain, and may regulate protein intracellular half-life. This PTP was found to bind and dephosphorylate the product of the oncogene c-ABL and thus may play a role in oncogenesis. This PTP was also shown to interact with, and dephosphorylate, various products related to cytoskeletal structure and cell adhesion, such as p130 (Cas), CAKbeta/PTK2B, PSTPIP1, and paxillin. This suggests it has a regulatory role in controlling cell shape and mobility. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Oct 2008]</p>

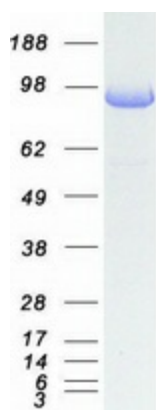
Product images:



Circular map for RC207952



Western blot validation of overexpression lysate (Cat# [LY419063]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207952 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PTPN12 protein (Cat# [TP307952]). The protein was produced from HEK293T cells transfected with PTPN12 cDNA clone (Cat# RC207952) using MegaTran 2.0 (Cat# [TT210002]).