

## Product datasheet for **RG226061**

### **PTPN12 (NM\_001131009) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PTPN12 (NM_001131009) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PTPN12
Synonyms:	PTP-PEST; PTPG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG226061 representing NM\_001131009  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGGATCGCC

ATGGCCTGCCGAGAATTTGAGATGGGAAGGAAAAATGTGAGCGCTATTGGCCTTTGTATGGAGAAGACC  
 CCATAACGTTTGACCATTAAAAATTTCTGTGAGGATGAACAAGCAAGAACAGACTACTTCATCAGGAC  
 ACTCTTACTTGAATTTCAAATGAATCTCGTAGGCTGTATCAGTTTCATTATGTAACTGGCCAGACCAT  
 GATGTTCCCTTCATCATTTGATTCTATTCTGGACATGATAAGCTTAATGAGGAAATATCAAGAACATGAAG  
 ATGTTCTATTTGATTCATTGCAGTGCAGGCTGTGGAAGAACAGGTGCCATTTGTGCCATAGATTATAC  
 GTGGAATTTACTAAAAGCTGGGAAAATACCAGAGGAATTAATGTATTTAATTAACAAGAAATGAGA  
 ACACAAAGGCATTCTGCAGTACAAACAAAGGAGCAATATGAACTGTTCATAGAGCTATTGCCAACTGT  
 TTGAAAAACAGCTACAACATATGAAATTCATGGAGCTCAGAAAATGCTGATGGAGTGAATGAAATTA  
 CACTGAAAACATGGTCACTCCATAGAGCCTGAAAACAAGATTCTCCTCCTCCAAAACCAAGGACC  
 CGCAGTTGCCCTTGTGAAGGGGATGCTAAAGAAGAAATCTGCAGCCACCGGAACCTCATCAGTGCCAC  
 CCATCTTGACACCTTCTCCCCCTCAGCTTTTCCAACAGTCACTACTGTGTGGCAGGACAATGATAGATA  
 CCATCCAAAGCCAGTGTTCATATGGTTTCATCAGAACAACATTCAGCAGACCTCAACAGAACTATAGT  
 AAATCAACAGAATTCAGGGGAAAAATGAATCAACAATGAACAGATAGATAAAAAATTTGGAACGAAAT  
 TAAGTTTTGAGATTAAGAAGTCCCTCTCCAAGAGGGACCAAAAAGTTTTGATGGGAACACACTTTTGAA  
 TAGGGGACATGCAATAAAAATTAATCTGCTTACCTTGATAGCTGATAAAATCTCTAAGCCACAGGAA  
 TTAAGTTCAGATCTAAATGTCGGTGATACTCCAGAATTCAGACACACCTCCAAGGCCAGACCGCTTGCC  
 TCTTGATGAGAAAAGGACATGTAACGTGGTCATTTTCATGGACCTGAAAATGCCATACCCATACCTGATTA  
 TCTGAAGCAATTCCTCAGATATCAACTATCAACTAGGAAAATGTGAGTTTAAACCAAGTCTACAA  
 CACAAGTTGAAACACCTGATCTTGTGGATCATGATAACACTTCACCACTCTTCAGAACACCCCTCAGTTT  
 TACTAATCCACTTCACTCTGATGACTCAGACTCAGATGAAAGAACTCTGATGGTGTGTGACCCAGAAT  
 AAACTAATATTTCAACAGCAAGTCCACAGTTTCTGCTGCCACTAGTACTGAAAGCATTCTACTAGGA  
 AAGTATTGCCAATGTCCATTGCTAGACATAATATAGCAGGAACAACACATTCAGGTGCTGAAAAAGATGT  
 TGATGTTAGTGAAGATTCACCTCTCCCTACCTGAAAGAACTCCTGAATCGTTTGTGTTAGCAAGTGAA  
 CATAATACACCTGTAAGATCGGAATGGAGTGAACCTCAAAGTCAAGAACGATCTGAACAAAAAAGTCTG  
 AAGGCTTGATAACCTCTGAAAATGAGAAATGTGATCATCCAGCGGAGGTATTCATATGAAATGTGCAT  
 AGAATGTCCACCTACTTTTCAGTGACAAGAGAGAAACAAATATCAGAAAATCCAACAGAAGCCACAGATATT  
 GGTTTTGGTAATCGATGTGGAAAACCAAGGACCAAGAGATCCACCTTCAGAATGGACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG226061 representing NM\_001131009  
 Red=Cloning site Green=Tags(s)

MACREFEMGRKKCERYWPLYGEDPITFAPFKISCEDEQARTDYFIRLLLLLEFQNESRRLYQFHVYNWPDH  
 DVPSSFDSILDMISLMRKYQEHEDVPICIHCSAGCGRTGAICAIDYTWNLLKAGKIPEEFNVFNLIQEMR  
 TQRHSAVQTKEQYELVHRAIAQLFEKQLQLYEIHGAQKIADGVNEINTENMVSSIEPEKQDSPPPKPPRT  
 RSCLVEGDAKEEILQPPEPHVPPILTPSPPSAFPTVTTVWQDNDRYHPKPVLMVSSIEQHSADLNRNYS  
 KSTELPGKNESTIEQIDKKLERNLSFEIKKVPLQEGPKSFDGNTLLNRGHAIKIKSASPCIADKISKPQE  
 LSSDLNVGDTSQNSCVDCSVTQSNKVSVPPEESQNSDTPPRPDRPLPLDEKGHVTSFHHGPENAIPIPD  
 SEGNSSDINYQTRKTVSLTPSPTTQVETPDLVDHNTSPLFRTPLSFTNPLHSDDSDSDERNSDGAVTQN  
 KTNISTASATVSAATSTESISTRKVLPMIARHNIAGTTTHSGAEKDVDVSEDSPPPLPERTPESFVLASE  
 HNTPVRESELSQSERSEQKSEGLITSENEKCDHPAGGIHYEMCIECPPTFSKREQISENPTEATDI  
 GFGNRCGKPKGPRDPPSEWT

TRTRPLE - GFP Tag - V



<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>RefSeq:</b>	<a href="#">NM_001131009.2</a>
<b>RefSeq Size:</b>	3026 bp
<b>RefSeq ORF:</b>	1953 bp
<b>Locus ID:</b>	5782
<b>UniProt ID:</b>	<a href="#">Q05209</a>
<b>Cytogenetics:</b>	7q11.23
<b>Protein Families:</b>	Druggable Genome, Phosphatase
<b>Gene Summary:</b>	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]