

## Product datasheet for SC115754

### PTPD1 (PTPN21) (NM\_007039) Human Untagged Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                             |
| Product Name:             | PTPD1 (PTPN21) (NM_007039) Human Untagged Clone |
| Tag:                      | Tag Free  |
| Symbol:                   | PTPD1   |
| Synonyms:                 | PTPD1; PTPRL10                                  |
| Mammalian Cell Selection: | None  |
| Vector:                   | <u>pCMV6-XL4</u>                                |
| E. coli Selection:        | Ampicillin (100 ug/mL)                          |

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_007039 edited  
GGGCGCCGCGAATTCGGCACGAGGGCAGCGGCTGCTGGGTGAGCAGCTGGAGGCCGGAC  
AGTGTTTCGTCCCATCCGGAGAGGATCGCTTTCTCCTGGCGTACCAGCGCTGGGTTGGTG  
GGGGTAGCTTTTCCCTCTTGTCTCCTCCATTCTTGAAGAAAGAAGAAGATGCCACTGCCA  
TTTGGGTTGAAACTGAAACGCACCCGGCGCTACACGGTGCCAGCAAGAGTTGCCTGGTT  
GCCCGGATCCAAGTCTTAATAACGAGTTTGTGGAGTTCACCCTGTCCGTGGAGAGCACT  
GGCCAGGAAAGCCTCGAGGCCGTGGCCAGAGGCTGGAGCTGCGGGAGGTCACTTACTTC  
AGCCTCTGGTACTACAACAAGCAAAATCAGCGCCGGTGGGTAGATTTGGAAAAACCTTTG  
AAGAAGCAGCTGGATAAATATGCATTGGAACCTACCGTCTATTTTGGAGTGGTGTTTTAT  
GTGCCTTCAGTTTCTCAGCTGCAGCAGGAGATTACCAGGTATCAGTATTATCTGCAACTG  
AAGAAAGATATCTTGAAGGAAGTATTCCTTGTACCTTAGAACAAGCAATTCAGCTAGCA  
GGCTTAGCTGTTCAAGCGGATTTGGTGACTTTGATCAGTATGAATCCCAGGACTTTCTT  
CAGAAATTTGCCTTGTTCCTGTGGGATGGTTACAAGATGAAAAAGTATTGGAAGAAGCA  
ACCCAAAAAGTGGCCTTACTACATCAGAAATACAGAGGGCTCACAGCTCCTGATGCTGAA  
ATGCTGTACATGCAGGAGGTAGAGAGAATGGATGGCTATGGAGAAGAGAGCTACCCTGCT  
AAGGATAGCCAAGGAAGTGACATATCCATTGGAGCGTGTCTTGAAGGTATCTTTGTGAAA  
CACAAGAATGGAAGGCATCCTGTGGTATTTAGGTGGCATGACATTGCCAACATGTCCCAC  
AACAAAGTCTTTTTTGCATTAGAGCTGGCAAATAAAGAGGAGACCATTCAATTTCAAAC  
GAAGACATGGAAACAGCAAAATACATTTGGAGACTCTGTGTTGCGCGACACAAGTTTTAC  
AGACTAAACCAAGTGAACCTGCAAACTCAGACTGTCACAGTGAACCCAATCAGGAGGAGG  
TCTTCTTCAAGGATGTCTCTGCCTAAACCCAGCCCTACGTGATGCCTCCCCACCCGACG  
TTGCACTATAATGGACATTATACAGAACCATATGCTTCTTCCCAAGATAACCTCTTTGTG  
CCCAACCAGAACGGATACTACTGCTCACTCTCAGACAAGCTTGGATAGAGCCAGATTGAC  
CTCAACGGTCCGATCCGTAATGGCAGTGTCTACAGTGCACACAGCACCAACTCCTAAAT  
AATCCTCAGCCCTACTTGCAGCCCTCGCCGATGTCGTCCAACCCTAGCATACCCGGGAGT  
GACGTCATGAGGCTGACTACCTCCCGTCCCATCGGCACAGCGCCGTGATACCCCGTCC  
TACCGCCCCACCCAGACTATGAGACTGTGATGAAGCAGCTCAACAGGGGCTGGTGCAT



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GCGGAACGGCAGAGCCACTCGCTGCGAAACCTCAACATCGGCAGCTCGTACGCCTACAGC  
AGGCCCGCGGCGTGGTCTACAGCCAGCCGAGATCCGCGAGCACGCACAGCTCCCTCG  
CCAGCGGCCGCACACTGCCCGTTACGCTGAGCTACAGCTTCCACAGCCCGTCTCCCTAC  
CCCTACCTGCCGAGCGGCGCCCGTGGTGGGCGCGGTGAGCGTGCCGGAGCTGACCAAT  
GCGCAGCTGCAGGCGCAGGACTACCCGTCTCCAAACATCATGCGGACGCAGGTGTACCGG  
CCACCCCAACCTACCCGCCCCAGGCCGCCAACAGCACGCCAGACCTGTCCCGCCAC  
CTTTACATCAGCAGCAGCAACCCCGACCTCATCACGCGGCGGTGCACCACTCGGTGCAA  
ACGTTCCAGGAGACAGCCTGCCCGTGGCGCACTCGCTGCAGGAGGTGAGCGAGCCCTC  
ACCGCCGCGCGCCACGCGCAGCTGCACAAACGGAACAGCATCGAGGTGGCCGGGCTCAGC  
CACGGCTGGAGGGCTGCGGCTCAAGGAGCGCACCTATCCGCGTGGCGGCAGAGGTG  
GCGCCGCGAGCCGTCTCGGTGGGCTCCAGCCAGCGTTTTACCAGAGGACACAGCGA  
GAAGGGCCGAGGAGGGCGGAGGGCTTGAGGTACGGCCATAAGAAGTCCCTGTCGGACGCC  
ACCATGCTAATCCACAGCAGCGAGGAGGAGGAGGACGAGGACTTCGAGGAGGAGAGCGGG  
GCCCGGGCGCTCCTGCACGTGCGCGGAGCCTCGGCCCGGCTGGCCAGGACCCACT  
GGCTGCCCTCGCTCCTGCTCGCCGGGCCCTGCACATCTGGAGCCCAAGGCCACGTC  
CCAGACGCGGAGAAGAGGATGATGGACAGCAGCCCGTCCGCACGACCGCAGAGGCCAG  
CGGCCCTGGAGAGACGGGCTGCTGATGCCCTCCATGTCGGAGTCCGACCTCACCACGTCA  
GGCCGCTACCGAGCCCGAGGGACTCTCTGAAGAAAAGGCCGGTGTGGACCTTCTCTCT  
GGGAAGAAGAATCGTGGAAAGGCTCCCGCTTAGGGGGAATGAAAAGACTCGAGTA  
GATGCAAAAAAATTGGTCTCTAAACTGGCTGCCCTAAATGGACTCTCCCTATCTCGA  
GTGCTCTGCCTGATGAAGGAAAGGAGTGGTACCAGAGCAACGAATGATGAAAGGTGT  
AAAATTCTGGAACAACGATTAGAACAAGGAATGGTATTCACAGAATATGAAAGAATCTT  
AAGAAACGGCTAGTTGATGGGGAGTGTCAACAGCAGCACTCCCTGAAAATGCAGAAAGA  
AATCGATTCCAAGATGTTCTTCTTATGATGATGTGAGAGTGGAGTTGGTCCCAACTAAA  
GAAAACAACACTGGTTACATCAACGCATCACATATTAAGGTCTCTGTCAGTGAATCGAA  
TGGGATTATATTGCCACACAGGGACATTACAGAATACCTGTCAAGATTTTTGGCAGATG  
GTATGGGAACAGGGAATTGCAATTATAGCAATGGTGACAGCAGAAGAGGAGGGTGGAAAG  
GAGAAGAGCTTTAGTACTGGCCACGACTTGGTCCAGGCACAACACTGTCACCTATGGA  
AGGTTTAAGATCACGACCCGGTCCGCACAGACTCTGGCTGCTATGCCACCACAGGCCTG  
AAGATGAAGCACCTCCTTACTGGCAAGAGAGGACCGTCTGGCACCTCCAATACACAGAC  
TGGCCTGAACATGGCTGTCCAGAAGACCTCAAGGGATTTTTATCATATCTTGAAGAGATC  
CAGTCTGTTCGACGCCATACAAATAGCACAAGTATCCCAAGCCCAACCTCCGTTG  
TTGGTCCACTGCAGTGTGGGTAGGAAGGACTGGCGTGGTGATTTTGTGGAGATCATG  
ATCGCCTGCCTGGAACACAATGAGGTGCTGGACATCCCGAGAGTGTGGACATGCTGAGG  
CAACAGAGAATGATGCTGGTGCAGACTCTTGCCAGTACACATTTGTGTACAGAGTCCCT  
ATCCAGTTCCTGAAAAGCTCCAGGCTCATTAAGTCCCACAATTTTACGGGGCCAGT  
CATGTGAAGCGTTTACAGCTTAAAAAAAAGCGCTTGCCTAACTCATACTTTCCCGTTGA  
CACTTGATCCACGCAGCGTGGCACTGGGACGTAAGTGGCGCAGTCTGAATGGCGGCACGC  
TGAAGGAAACGTGCGAAGCACAGGCTGAAGAGGGGTTTCTAACCTGGGAAAGGTGCTCAA

|                                     |   |
|-------------------------------------|---|
| <b>5' Read Nucleotide Sequence:</b> | >OriGene 5' read for NM_007039 unedited<br>GATACGACTCACTATAGGCGGCCGCAATTCGCACGAGGGCAGCGGCTGCTGGGTGAGCA<br>GCTGGAGGCCGGACAGTGTTCGTCATCCGGAGAGGATCGCTTCTCCTGGCGTCACCA<br>GCGCTGGGTTGGTGGGGTAGCTTTCCCTCTTTGCTCCTCCATTCTTGAAGAAAGAAGA<br>AGATGCCACTGCCATTTGGGTTGAAACTGAAACGCACCCGGCGCTACACGGTGTCCAGCA<br>AGAGTTGCCTGGTGGCCGGATCCAAGCTTAATAACGAGTTTGTGGAGTTCACCCTGT<br>CCGTGGAGAGCACTGGCCAGGAAAGCCTCGAGGCCGTGGCCAGAGGCTGGAGCTGCGGG<br>GAGGTCACCTTACTCAGCCTCTGGTACTACAACAAGCAAAATCAGCGCCGGTGGGTTAGA<br>TTTGAAAAACCTTTGAAGAAGCAGCTGGATAAATATGCATTGGAACCTACCGTCTATTT<br>GGGAGNGGGTGTNTTATGTGCCCTCAGTTTCTCAGCTGCAGCAGGAGATTACNCAGTA<br>TCAGTATTATCTGCAACTGAAGAAAGATATTTTGAAGGAAGTATTCCTTGTACCTTAGA<br>ACAAGCAATTCAGTTAGCAGTTTTAGCTGGTCAGCGGAATTTTTGGTGACCTTTGATCA<br>GTATGAATCCCAGGACTTTCTTCAGAAATTTGCCCTTGTCTCGGGGGGAAGGGTAACA<br>GATGAAAAAGGTTTGGGAAGAAGCACCCAAAAAGTGGCCCTACTACATCAGAATAACAG<br>AGGGCTCACAGCTCCTGATGCTGAAAGTGACTGCCCGGAGGTAAGAAAAAGGATGGGT<br>TTGAAAAAAAACCACTGCTAGGATAGCAAAGGAAGGACATCATGGGACCGGGTTTGAG<br>TTTCTTTGGGACAAAAAGGGTCTGGGTTTNTTGGGGGGATGATTGCCACTTCCCAC<br>CAATGTTTTTGTATAACTGAAAAAAGAAAA |
| <b>Restriction Sites:</b>           | NotI-NotI   |
| <b>ACCN:</b>                        | NM_007039   |
| <b>Insert Size:</b>                 | 1750 bp   |
| <b>OTI Disclaimer:</b>              | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).  |
| <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>                      | <u>NM_007039.2, NP_008970.1</u>   |
| <b>RefSeq Size:</b>                 | 4234 bp   |
| <b>RefSeq ORF:</b>                  | 3525 bp   |
| <b>Locus ID:</b>                    | 11099   |
| <b>UniProt ID:</b>                  | <u>Q16825</u>   |
| <b>Cytogenetics:</b>                | 14q31.3   |
| <b>Domains:</b>                     | Y_phosphatase, B41, PTPc_motif  |

**Protein Families:** Druggable Genome, Phosphatase

**Gene Summary:** The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an N-terminal domain, similar to cytoskeletal-associated proteins including band 4.1, ezrin, merlin, and radixin. This PTP was shown to specially interact with BMX/ETK, a member of Tec tyrosine kinase family characterized by a multimodular structures including PH, SH3, and SH2 domains. The interaction of this PTP with BMX kinase was found to increase the activation of STAT3, but not STAT2 kinase. Studies of the similar gene in mice suggested the possible roles of this PTP in liver regeneration and spermatogenesis. [provided by RefSeq, Jul 2008]