

## Product datasheet for **SC124914**

### PTP alpha (PTPRA) (NM\_080841) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PTP alpha (PTPRA) (NM_080841) Human Untagged Clone
Tag:	Tag Free
Symbol:	PTP alpha
Synonyms:	HEPTP; HLPR; HPTPA; HPTPalpha; LRP; PTPA; PTPRL2; R-PTP-alpha; RPTPA
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_080841 edited  
GGGCGCCGCGAATTCGGCAGGAGGGGATGCAGTTCAAATAAGACACATGTT  
CAAAGAGCATAATTAACCTTTTTAAAGAAGCTAATAAGCATGGATTCTGGTTTCATTCTT  
GTTCTGCTCGGCAGTGGTCTGATATGTGTCAAGTCCCAACAATGCTACCACAGTTGCACCT  
TCTGTAGGAATTACAAGATTAATTAACCTCATCAACGGCAGAACCAGTTAAAGAAGAGGCC  
AAAACCTCAAATCCAACCTTCTTCACTAACTTCTCTTTCTGTGGCACAACATTTCAGCCCA  
AATATAACTCTGGGACCCACCTATTTAACCCTGTCAATTCTTCAGACTCTGACAATGGG  
ACCACAAGAAGCAGCAAGCACAATTCTATAGGCATTACAATTTCAACAAATGGAACGTGG  
CTTCCAGATAACCAAGTTCACGGATGCCAGAACAGAACCCCTGGGAGGGGAATTCAGCACC  
GCAGCAACCACTCCAGAACTTTCCCTCCTTCAGATGAGACCAATTATTGCGGTGATG  
GTGGCCCTGTCTCTCTGCTAGTGTGATCGTGTATTATCATAGTTTTGTACATGTTAAGG  
TTTAAGAAATACAAGCAAGCTGGGAGCCATTCCAATTCTTCCGCTTATCCAACGCGCCG  
ACTGAGGATGTGGAGCCCAAGAGTGTGCCACTTCTGGCCAGATCCCAAGCACAACAGG  
AAATACCCACCCCTGCCCGTGGACAAGCTGGAAGAGGAAATTAACCGGAGAAATGGCAGAC  
GACAATAAGCTCTTCAGGGAGGAATTAACGCTCTCCCTGCATGTCTATCCAGGCCACC  
TGTGAGGCTGCTTCCAAGGAGGAAAACAAGGAAAAAATCGATATGTAACATCTTGCT  
TATGACCACTCTAGAGTCCACCTGACACCGTTGAAGGGGTTCCAGATTCTGATTACATC  
AATGCTTCATTCATCAACGGCTACCAAGAAAAGAACAATTCATTGCTGCACAAGGACCA  
AAAGAAGAAAACGGTGAATGATTTCTGGCGGATGATCTGGGAACAAAACACAGCCACCATC  
GTCATGGTTACCAACCTGAAGGAGAGAAAAGGAGTGAAGTGCGCCCAGTACTGGCCAGAC  
CAAGGCTGCTGGACCTATGGGAATATTCGGGTGTCTGTAGAGGATGTGACTGTCTGGT  
GACTACACAGTACGGAAGTTCTGCATCCAGCAGGTGGGCGACATGACCAACAGAAAGCCA  
CAGCGCTCATCACTCAGTTCCACTTTACCAGCTGGCCAGACTTTGGGGTGCCTTTTACC  
CCGATCGGCATGCTCAAGTTCCTCAAGAAGGTGAAGGCCGTGAACCTCAGTATGCAGGG  
GCCATCGTGGTCCACTGCAGTGAAGTGTAGGGCGTACAGGTACCTTTGTCGTATTGAT  
GCCATGCTGGACATGATGCATACAGAACGGAAGGTGGACGTGTATGGCTTTGTGAGCCGG  
ATCCGGGCACAGCGCTGCCAGATGGTCAAACCGATATGCAGTATGTCTTCATATACCA



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GCCCTTCTGGAGCATTATCTCTATGGAGATACAGAACTGGAAGTGACCTCTCTAGAAACC  
CACCTGCAGAAAATTTACAACAAAATCCCAGGGACCAGCAACAATGGATTAGAGGAGGAG  
TTTAAGAAGTTAACATCAATCAAATCCAGAATGACAAGATGCGGACTGGAAACCTTCCA  
GCCAACATGAAGAAGAACCCTGTTTTACAGATCATTCCATATGAATCAACAGAGTGATC  
ATTCCAGTTAAGCGGGGCGAAGAGAATACAGACTATGTGAACGCATCCTTTATTGATGGC  
TACCGGCAGAAGGACTCCTATATCGCCAGCCAGGGCCCTCTTCTCCACACAATTGAGGAC  
TTCTGGCGAATGATCTGGGAGTGGAATCCTGCTCTATCGTGATGCTAACAGAACTGGAG  
GAGAGAGGCCAGGAGAAGTGTGCCAGTACTGGCCATCTGATGGACTGGTGTCTATGGA  
GATATTACAGTGGAACTGAAGAAGGAGGAGGAATGTGAGAGCTACACCGTCCGAGACCTC  
CTGGTCACCAACACCAGGGAGAATAAGAGCCGGCAGATCCGGCAGTTCCACTTCCATGGC  
TGGCCTGAAGTGGGCATCCCAGTGACGGAAGGGCATGATCAGCATCATCGCCGCCGTG  
CAGAAGCAGCAGCAGCAGTACAGGAACCAACCCATCACCGTGCAGTGCAGCGCCGGGCA  
GGAAGGACGGGGACCTTCTGTGCCCTGAGCACCGTCTGGAGCGTGTAAAGCAGAGGGG  
ATTTTGGATGTCTCCAGACTGTCAAGAGCCTGCGGCTACAGAGGCCACACATGGTCCAG  
ACACTGGAACAGTATGAGTTCTGCTACAAGGTGGTGCAGGAGTATATTGATGCATTCTCA  
GATTATGCCAACTTCAAGTAAGCGGCAACAAGGGTCCGTGGACCAGGAGGATTGCCTTTA  
ATATTTTGAATATTCTGTTTTGTTAATATACCCAAATTGTGTATATATCTTATAACTG  
TTTTAGAAATGGTACATAGGCTTCTATTACCTATTAGGTGGAATTTTATATGTAATG  
TGTTAGCACTGATAGTCTTTTTCCAATGTTTTATTGGGGAATTAATAGTGTGATGTTT  
GGATTGATATCGTGAAATCCTCAGCCGAGAAATGGGCTGGATTGTGCTTTGGTTAATAC  
ATCTTTCCCTAAAGAAGATAACACAAAATCCATTTACAGTAGCTCGGCACCAACTAAGA  
AAAAAAGCACAAAGTTCTCAGAGCTCTCGAGGAAAGTGGTTGTCCCGTACCACCATGCA  
CTGTAATATCCCTCCCCTCTCTCCCTGGTCCCCTCCCCATCCCCACCCTGATATCAT  
GGGGAGTAATAGGACCAGAGCGGTATCTCTGGCACCACTAGGGACTATCAGGTAATAA  
AAGCTTTGACTCCCTAAAAAATAAAAAAAAAAAC

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_080841 unedited  
GGTGCATATTTGTATACGACTCATATAGGCGGCCGAAATTCGCACGAGGGGATGATG  
CAGTTCAAATAACTAAGGACACATGTTCAAAGAGCATAATTAACTTTTTAAAAGAAGCTA  
ATAAGCATGGATTCTCTGTTTCATTCTTGTCTGCTCGGCAGTGGTCTGATATGTGTCAGT  
GCCAACAAATGCTACCACAGTTGCACCTTCTGTAGGAATTACAAGATTAATTAACTCATCA  
ACGGCAGAACAGTTAAAGAAGAGGCCAAAACCTCAAATCCAACCTTCTCACTAACTTCT  
CTTTCTGTGGCACCACATTCAGCCAAATATAACTCTGGGACCCACCTATTTAACCACT  
GTCAATTTCTCAGACTCTGACAATGGGACCACAAGAACAGCAAGCACCAATTCTATAGGC  
ATTACAATTTACCAAATGGAACGTGGCTTCCAGATAACCAGTTCACGGATGCCAGAAC  
GAACCCTGGGAGGGGAATTCAGCACCGCAGCAACCACTCCAGAACTTTCCCTCCTTCA  
GATGAGACACCAATTATTGCGGTGATGGTGGCCCTGTCTCTCTGCTAGTGATCGTGT  
ATTATCATAGTTTTGTACATGTTAAGGTTTAAAGAAATACAAGCAAGCTGGGAGCCATTCC  
AATTCTTTCCGCTTATCCAACGGCCGCACTGAGGATGTGGAGCCCCAGAGTGTGCCACTT  
CTGGCCAGATCCCAAGCACCAACAGGAAATACCCACCCCTGCCCGTGGACAAGCTGGAA  
AGAGAAATTACNGAGAAATGGCAGACGACAATAAGCTCTTACAGGGAGGAATTCACGCTCT  
NCCTGCATGTNCTATCCAGGCCACCTGTGAAGCTGCTTCAAGGAGGAAAAACANGNAAA  
AATCGATATGTAACATCTGCCTAT

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_080841 unedited TATGGAACCGCGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTAGGGAGTCAAA GCTTTTATTACCTGATAGTCCCTAGTGTGGTGCCAGAGATACCGCTCTGGTCCTATTACT CCCCATGATATCAGTGGTGGGGATGGGGGAGGGGACCAGGGAGAGAGGGGAGGGATATTT ACAGTGCATGGTGGTACGGGGACAACCACTTTCTCGAGAGCTCTGAGAACTTTGTGCTT TTTTTCTTAGTTGGTGCCGAGCTACCTGAAATGGATTTTGTGTTTATCTTCTTTAGGGAA AGATGTATTAACCAAAGCACAATCCAGCCCAATTTCTCGGCTGAGGATTTACAGATATCA ATCCAAAACATCACACTATTTAATTCCTCAATAAAACATTGGAAAAAGGACTATCAGTGT AACACATTTACATATAAAATTTCCACCTAATAGGTAATAGAAGCCTATGTACCAATTTCT AAAACAGTTATAAGATATATACACAATTTGGGGTATATTAACAAAACAGAATATTACAAA ATATTAAGGCAATCCTCCTGGTCCACGGACCCTTGTGGCCGCTTACTTGAAGTTGGCAT AATCTGAGAATGCATCAATATACTCCTGCACCACCTTGTAGCAGAACTCATACTGTTCCA GTGTCTGGACCATGTGTGCCTCTGTAGCCGACGGCTCTTACAGTCTGGAAGACATCCA AAATCCCCTCTGCTTTCACACGCTCCAGGACGGTCTCANGGCACAGAANGTCCCGTCC TTTCTGCCCCCGCTGCANTGCACGGTATGGGGGTGGGTCCCTGACTGCTGCTGCTGC TTCTGCACGGCGCGATGATGCTGATCATGCCCTTCCGTCACTGGGGATGCCCACTTCA GCCCANCTGGGAATGGGACTGGCCGGTCTGCCGGCTCTATCTTCTGCGGTGGTGAC ACGAAGTCTTGACCGGGAGCTTTTAT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_080841
<b>Insert Size:</b>	3200 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><a href="#">NM_080841.1, NP_543031.1</a></u>
<b>RefSeq Size:</b>	3148 bp
<b>RefSeq ORF:</b>	2382 bp
<b>Locus ID:</b>	5786
<b>UniProt ID:</b>	<u><a href="#">P18433</a></u>
<b>Cytogenetics:</b>	20p13
<b>Domains:</b>	Y_phosphatase

**Protein Families:** Druggable Genome, Phosphatase, Transmembrane

**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 extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus represents a receptor-type PTP. This PTP has been shown to dephosphorylate and activate Src family tyrosine kinases, and is implicated in the regulation of integrin signaling, cell adhesion and proliferation. Three alternatively spliced variants of this gene, which encode two distinct isoforms, have been reported. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (3) contains an additional exon within the 5' UTR, and lacks an internal coding exon, when compared to variant 1. The resulting isoform (2) lacks a 9 aa internal segment, as compared to isoform 1.