

## Product datasheet for **SC109677**

### PTP epsilon (PTPRE) (NM\_130435) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PTP epsilon (PTPRE) (NM_130435) Human Untagged Clone
Tag:	Tag Free
Symbol:	PTP epsilon
Synonyms:	HPTPE; PTPE; R-PTP-EPSILON
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC109677 sequence for NM\_130435 edited (data generated by NextGen Sequencing)

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ATGAGCAACAGGAGTAGCTTTTCCCGGCTCACCTGGTTCAGGAAGCAGAGGAAAGCTGTG
GTCAGCACCAGCGACAAGAAGATGCCAACGGAATCTTGGAGGAGCAAGAGCAGCAAAGG
GTGATGCTGCTCAGCAGGTCACCCTCAGGGCCCAAGAAGTATTTCCCATCCCGTGGAG
CACCTGGAGGAGGAGATCCGTATCAGATCCGCCGACGACTGCAAGCAGTTTCGGGAGGAG
TTCAACTCATTGCCATCTGGACACATACAAGGAACCTTTGAACTGGCAAATAAAGAAGAA
AACAGAGAAAAAACAGATATCCCAACATCCTTCCCAATGACCATTCTAGGGTGATTCTG
AGCCAACCTGGATGGAATTCCTGTTTCAGACTACATCAATGCTTCTACATAGATGGTTAC
AAAGAGAAGAATAAATTCATAGCAGCTCAAGGTCCCAAACAGGAAACGGTTAACGACTTC
TGGAGAATGGTCTGGGAGCAAAGTCTGCGACCATCGTCATGTTAACAACTTGAAAGAA
AGGAAAGAGGAAAAGTGCCATCAGTACTGGCCGACCAAGGCTGCTGGACCTATGAAAC
ATCCGGGTGTGCGTGGAGGACTGCGTGGTTTTGGTTCGACTACACCATCCGGAAGTTCTGC
ATACAGCCACAGCTCCCCGACGGCTGCAAAGCCCCAGGCTGGTCTCACAGCTGCACTTC
ACCAGCTGGCCGACTTCGGAGTGCCTTTTACCCCATTTGGGATGCTGAAGTTCTCAAG
AAAGTAAAGACGCTCAACCCCGTGCACGCTGGGCCCATCGTGGTCCACTGTAGCGCGGGC
GTGGGCCGGACGGGCACCTTCATTGTGATCGATGCCATGATGGCCATGATGCACGCGGAG
CAGAAGGTGGATGTTTGAATTTGTGTCTCGAATCCGTAATCAGCGCCCTCAGATGGTT
CAAACGGATATGCAGTACACGTTTCATCTACCAAGCCTTACTCGAGTACTACCTCTACGGG
GACACAGAGCTGGACGTGCTCCTCCCTGGAGAAGCACCTGCAGACCATGCACGGCACACC
ACCCACTTCGACAAGATCGGGCTGGAGGAGGAGTTCAGGAAATTGACAAATGTCCGGATC
ATGAAGGAGAACATGAGGACGGGCAACTTGCCGGCAAACATGAAGAAGGCCAGGGTCATC
CAGATCATCCCGTATGACTTCAACCGAGTGATCCTTTCCATGAAAAGGGTCAAGAATAC
ACAGACTACATCAACGCATCCTTCATAGACGGCTACCGACAGAAGGACTATTTTCATCGCC
ACCCAGGGCCACTGGCACACACGTTGAGGACTTCTGGAGGATGATCTGGGAATGGAAA
TCCCACTATCGTGATGCTGACGGAGGTGCAGGAGAGAGCAGGATAAATGCTACCAG
TATTGGCCAACCGAGGGCTCAGTTACTCATGGAGAAATAACGATTGAGATAAAGAATGAT
ACCCTTTCAGAAGCCATCAGTATACGAGACTTTCTGGTCACTCTCAATCAGCCCCAGGCC
CGCCAGGAGGAGCAGTCCGAGTAGTGCGCCAGTTTCACTTCCACGGCTGGCCTGAGATC
GGGATTCGCCGAGGGCAAAGGCATGATTGACCTCATCGCAGCCGTGCAGAAGCAGCAG
CAGCAGACAGGCAACCACCCCATCACCGTGCAGTGCAGTCCCGGAGCTGGGCGAACAGGT
ACATTCATAGCCCTCAGCAACATTTTGGAGCGAGTAAAAGCCGAGGGACTTTTAGATGTA
TTTCAAGCTGTGAAGAGTTTACGACTTCAGAGACCACATATGGTGCAAACCCTGGAAACAG
TATGAATTCGCTACAAAGTGGTACAAGATTTTATTGATATATTTCTGATTATGCTAAT
TTCAAATGA
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Clone variation with respect to NM\_130435.3

<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_130435 unedited CGTTCACATTTGTATACGACTCCTATAGGGCGGCCGGAATTCGCACCAGGTGGCTCAGC CATGAGCAACAGGAGTAGCTTTTCCCGGCTCACCTGGTTCAGGAAGCAGAGGAAAGCTGT GGTCAGCACCAGCGACAAGAAGATGCCAACGGAATCTTGAGGAGCAAGAGCAGCAAAG GGTGATGCTGCTCAGCAGGTACCCTCAGGGCCCAAGAAGTATTTCCCATCCCCGTGGA GCACCTGGAGGAGAGATCCGTATCAGATCCGCCGACGACTGCAAGCAGTTTCGGGAGGA GTTCAACTCATTGCCATCTGGACACATACAAGGAACCTTTGAAGTGGCAAATAAAGAAGA AAACAGAGAAAAAACAGATATCCAACATCCTTCCAATGACCATTCTAGGGTGATTCT GAGCCAACCTGGATGGAATTCCCTGTTCAGACTACATCAATGCTTCTACATAGATGGTTA CAAAGAGAAGAATAAATTCATAGCAGCTCAAGGTCCAAACAGGAAACGGTTAACGACTT CTGGAGAATGGTCTGGGAGCAAAAGTCTGCGACCATCGTCATGTTAACAACTTGAAAGA AAGGAAAGAGGAAAAGTGCCATCAGTACTGGCCCGACCAAGGCTGCTGGACCTATGGAAA CATCCGGGTGTGCGTGGAGGACTGCGTGGTTNTGGTCGACTACACCATCCGGAAGTTCTG CATACAGCCACAGCTCCCGACGGCTGCANAGCCCCCAGGCTGGTCTCACAGCTGCACTT CACCAGCTGGCCCGACTTCGNAGTGCCTTTTACCCCCATTGGGATGCTGAAGTCCCTCA GAAAGTAAGACGCTCAACCCGTGCACGCTGGGCCCATCGTGGTCCACTGNTACGGGGGCG TGGGCCGGNACGGCACCTCCATGTGATCGATCCCT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_130435
<b>Insert Size:</b>	2200 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>	<a href="#">NM_130435.2</a> , <a href="#">NP_569119.1</a>
<b>RefSeq Size:</b>	5002 bp
<b>RefSeq ORF:</b>	1929 bp
<b>Locus ID:</b>	5791
<b>UniProt ID:</b>	<a href="#">P23469</a>
<b>Cytogenetics:</b>	10q26.2
<b>Domains:</b>	Y_phosphatase, PTPc_motif
<b>Protein Families:</b>	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. Several alternatively spliced transcript variants of this gene have been reported, at least two of which encode a receptor-type PTP that possesses a short extracellular domain, a single transmembrane region, and two tandem intracytoplasmic catalytic domains; another one encodes a PTP that contains a distinct hydrophilic N-terminus, and thus represents a nonreceptor-type isoform of this PTP. Studies of the similar gene in mice suggested the regulatory roles of this PTP in RAS related signal transduction pathways, cytokine-induced SATA signaling, as well as the activation of voltage-gated K<sup>+</sup> channels. [provided by RefSeq, Oct 2015]

Transcript Variant: This variant (2) contains an alternate exon in place of the first 5 exons compared to variant 3. The resulting isoform (2) has a shorter and distinct N-terminus compared to isoform 3. The encoded protein is a cytoplasmic isoform of this PTP.