

Product datasheet for **SC325414**

PTP kappa (PTPRK) (NM_001135648) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: PTP kappa (PTPRK) (NM_001135648) Human Untagged Clone
Tag: Tag Free
Symbol: PTP kappa
Synonyms: R-PTP-kappa
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_001135648 edited
 ATGGATACGACTGCGGCGGCGCTGCCTGCTTTTGTGGCGCTCTTGCTCCTCTCCT
 TGGCCTCTCCTGGGATCGGCCAAGGCCAGTTCTCCGAGGTGGCTGTACTTTTGATGAT
 GGTCCAGGGGCTGTGATTACCACCAGGATCTGTATGATGACTTTGAATGGGTGCATGTT
 AGTGCTCAAGAGCCTCATTATCTACCACCCGAGATGCCCAAGGTTCTATATGATAGTG
 GACTCTTCAGATCACGACCCTGGAGAAAAAGCCAGACTTCAGCTGCCTACAATGAAGGAG
 AACGACACTCACTGCATTGATTTAGTTACCTATTATATAGCCAGAAAGGACTGAATCCT
 GGCACCTTTGAACATATTAGTTAGGGTGAATAAAGGACCTCTTGCCAATCCAATTTGGAAT
 GTGACTGGATTACGGGTAGAGATTGGCTTCGGGCTGAGCTAGCAGTGAGCACCTTTTGG
 CCCAATGAATATCAGGTAATATTTGAAGCTGAAGTCTCAGGAGGGAGAAGTGTTATATT
 GCCATTGATGACATCCAAGTACTGAGTTATCCTTGTGATAAATCTCCTCATTTCCCTCCGT
 CTAGGGGATGTAGAGGTGAATGCAGGGCAAACGCTACATTTTCAGTGCATTGCCACAGGG
 AGAGATGCTGTGCATAACAAGTTATGGCTCCAGAGACGAAATGGAGAAGATATACCAAGTA
 GCCCAGACTAAGAACATCAATCATAGAAGGTTTGGCGCTTCTTCAGATTGCAAGAAGTG
 ACAAAAACGACCAGGATTTGTATCGCTGTGTAACCTCAGTCAGAACGAGGTTCCGGTGTG
 TCCAATTTTGCTCAACTATTGTGAGAGAACCGCCAAGACCCATTGCTCCTCCTCAGATT
 CTTGGTGTGGGCTACATATTTGCTGATCCAATAAATGCCAATCGATCATTGGCGAT
 GGTCCATCATCCTGAAAGAAGTAGAGTACCGAATGACATCAGGATCCTGGACAGAAACC
 CATGCAGTCAATGCTCCAACTTACAAATTATGGCATTAGATCCAGATACCGAATATGAG
 ATCCGAGTTCTACTTACAAGACCTGGTGAAGGTGGAACGGGCTCCAGGACCTCCACTA
 ATCACCAGAACAATAATGTGCAGAACCTATGAGAACCCAAAGACATTAAGATTGCTGAA
 ATACAGGCAAGACGGATTGCTGTGGACTGGGAATCCTTGGGTTACAACATTACGCGTTGC
 CACACTTTTAATGCTACTATCTGCTACCATTACTTCCGTGGTCACAACGAGAGCAAGGCA
 GACTGTTTGGACATGGACCCAAAGCCCCTCAGCATGTTGTGAACCATCTGCCACCTTAT
 ACAATATGCAGCCTCAAGATGATCCTAACCAATCCAGAGGGAAGGAAGGAGAGTGAAGAG
 ACAATTATCAAATGATGAAGATGTGCCTGGTCCCGTACCAGTAAAATCTCTTCAAGGA
 ACATCCTTTGAAAATAAGATCTTCTTGAAGTGGAAAGAACCTTTGGATCCAATGGAATC



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ATCACTCAATATGAGATCAGCTATAGCAGTATAAGATCATTTGATCCTGCAGTCCCAGTG
 GCTGGACCTCCCCAGACTGTATCAAATTTATGGAACAGTACACACCATGTCTTTATGAAT
 CTCCACCCTGGAACCACGTACCAGTTTTTCATAAGAGCCAGCACGGTCAAAGGCTTTGGT
 CCAGCCACAGCCATCAATGTACCACCAATATCTCAGCTCCAACCTTACCTGACTATGAA
 GGAGTTGATGCCTCTCTCAATGAACTGCCACCACAATAACTGTATTGTTGAGACCAGCA
 CAAGCCAAAGGTGCTCCTATCAGTGCTTATCAGATTGTTGTGGAAGAAGTGCACCCACAC
 CGAACCAAGAGAGAAGCCGGAGCCATGGAATGCTACCAGTTCCCTGTCACATACCCAAAT
 GCCATGAGTGGGGTGCACCGTATTACTTTGCTGCAGAAGTACCCCGGAAACCTACCT
 GAGCCTGCCCCGTTCACTGTGGGTGACAATCGGACCTACCAAGGCTTTTGAACCTCCT
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 ACTAAAACCCAGTGCCTACGCATTGCTACAAAAGCAGCAGCAACAGAAGAACCAGAAGTG
 ATCCCAGATCCCAGCAAGCAGACAGACAGAGTGGTAAAAATAGCAGGAATTAGTGCTGGA
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 GCTAAAAACGCAAAGATGCCATGGGGAATACCCGGCAGGAGATGACTCACATGGTGAAT
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 TCCAGTCGCTTCTAGACGTACCTCGCTACCTCTGTGAGGGGACGGAATCCCCTTACCAG
 ACAGGACAGCTGCATCCAGCCATCAGGGTAGCTGATTTACTGCAGCACATTAATCTCATG
 AAGACATCAGACAGCTATGGGTTCAAAGAGGAATATGAGAGCTTTTTTGAAGGACAGTCA
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 ATAGCATATGATCACTCCAGAGTGATTTTGAACCCGTAGAGGATGATCCTTCTCAGAT
 TATATTAATGCCAACTATATTGATATTTGGCTGTACAGGGATGGCTACCAGAGACCAAGT
 CATTACATTTGCAACCCAAAGGTCCTTCCATGAAACAGTGTATGATTTCTGGAGGATGATT
 TGGCAAGAACAATCTGCTTGCATTGTGATGGTTACAAATTTAGTTGAGGTTGGCCGGTT
 AAATGCTATAAATATTGGCTGATGATACTGAAGTTTATGGTGACTTCAAAGTAACGTGT
 GTAGAAATGGAACCACTTGTGAATATGTAGTTAGGACATTCACCTGGAAGGAGGGGG
 TACAATGAAATCCGTGAAGTTAAACAGTTCCATTTACGGGCTGGCTGACCATGGAGTG
 CCCTACCATGCTACAGGGCTGCTTCTTTATCCGGCAGTCAAGTTATCAAACCTCCC
 AGTGCTGGCCCCATCGTTGTACATTGCAGTGCTGGTGTGGACGAACTGGCTGTACATT
 GTGATTGACATCATGCTAGACATGGCTGAAAGAGAGGGTGTGTTGATATTTACAATTGT
 GTCAAAGCCTTAAGATCTCGGCGTATTAATATGGTCCAGACAGAGGAACAGTACATTTTT
 ATTCATGATGCCATTTTAGAAGCCTGCTTATGTGGAGAAACTGCCATACCTGTCTGTGAA
 TTTAAAGCTGCATATTTTATGATGATTAGAATAGACTCCCAGACTAACTCTTACATCTC
 AAGGATGAATTTAGACTCTGAATTCAGTACCCCTCGACTACAAGCTGAAGACTGCAGT
 ATAGCGTGCCTGCCAAGGAACCATGACAAGAACCGTTTCATGGACATGCTGCCACCTGAC
 AGATGTCTGCCTTTTTAATTACAATTGATGGGAGAGCAGTAACTACATCAATGCTGCT
 CTTATGGACAGCTACAGGCAACCAAGCTGCTTTCATCGTCACACAATACCTCTGCCAAAC
 ACTGTAAGACTTCTGGAGATTAGTGTATGATTATGGCTGTACCTCCATTGTGATGTTA
 AACGAAGTCGACTTGTCCCAGGGCTGCCCTCAGTACTGGCCAGAGGAAGGGATGCTACGA
 TATGGCCCCATCCAAGTGAATGTATGTCTTGTCAATGGACTGTGATGTGATCAACCGG
 ATTTTTAGGATATGCAATCTAACAAGACCACAGGAAGTTATCTGATGGTGAACAGTTT
 CAGTACCTAGGATGGGCTTCTCATCGAGAAGTGCCTGGATCCAAAAGGTCATTCTTGAAA
 CTGATACTTCAGGTGAAAAAGTGGCAGGAGGAATGCGAGGAAGGGGAAGGCCGACGATT
 ATCCACTGCCTAAATGGTGGCGGGCAAGTGGCATGTTCTGTGCTATAGGCATCGTTGTT
 GAAATGGTGAACGCGAAAATGTTGTCGATGTTTTCCATGCAGTAAAGACTGAGGAAC
 AGCAAGCCAAACATGGTGAAGCCCGGAGCAATACCGTTTCTGCTATGATGTAGCTTTG
 GAGTACCTGGAATCATCTTAG

Restriction Sites: Please inquire
ACCN: NM_001135648
Insert Size: 4700 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM_001135648.1](#), [NP_001129120.1](#)

RefSeq Size: 6173 bp

RefSeq ORF: 4341 bp

Locus ID: 5796

UniProt ID: [Q15262](#)

Cytogenetics: 6q22.33

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 possesses an extracellular region, a single transmembrane region, and two tandem catalytic domains, and thus represents a receptor-type PTP. The extracellular region contains a meprin-A5 antigen-PTP mu (MAM) domain, an Ig-like domain and four fibronectin type III-like repeats. This PTP was shown to mediate homophilic intercellular interaction, possibly through the interaction with beta- and gamma-catenin at adherens junctions. Expression of this gene was found to be stimulated by TGF-beta 1, which may be important for the inhibition of keratinocyte proliferation. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) lacks three alternate in-frame exons compared to variant 3. The resulting isoform (a) has the same N- and C-termini but is shorter compared to isoform c.