

Product datasheet for **RC209393**

Pyrophosphatase 1 (PPA1) (NM_021129) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pyrophosphatase 1 (PPA1) (NM_021129) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pyrophosphatase 1
Synonyms:	HEL-S-66p; IOPPP; PP; PP1; SID6-8061
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209393 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAGCGGCTTCAGCACCGAGGAGCGCGCCGCCCTTCTCCCTGGAGTACCGAGTCTTCTCAAAAATG
AGAAAGGACAATATATATCTCCATTTTCATGATTTCCAATTTATGCAGATAAGGATGTGTTTCACATGGT
AGTTGAAGTACCACGCTGGTCTAATGCAAAAATGGAGATTGCTACAAAGGACCCTTTAAACCTATTTAA
CAAGATGTGAAAAAGGAAAACCTCGCTATGTTGCGAATTTGTTCCCGTATAAAGGATATATCTGGAAC
ATGGTGCCATCCCTCAGACTTGGGAAGACCCAGGGCACAATGATAAACATACTGGCTGTTGTGGTGACAA
TGACCAATTGATGTGTGTGAAATTGGAAGCAAGGTATGTGCAAGAGGTGAAATAATTGGCGTGAAAGTT
CTAGGCATATTGGCTATGATTGACGAAGGGGAAACCGACTGGAAGTCATTGCCATTAATGTGGATGATC
CTGATGCAGCCAATTATAATGATATCAATGATGTCAAACGGCTGAAACCTGGCTACTTAGAAGCTACTGT
GGACTGGTTTAGAAGGTATAAGTTCTGATGGAAAACCGAAAATGAGTTTGCCTTTAATGCAGAAATTT
AAAGATAAGGACTTTGCCATTGATATTATTAAGCACTCATGACCATTGGAAAGCATTAGTGACTAAGA
AAACGAATGGAAGGAATCAGTTGCATGAATACAACCTTTGTCTGAGAGCCCTTCAAGTGTGATCCTGA
TGCTGCCAGAGCCATTGTGGATGCTTACCACCACCTGTGAATCTGCCTGCACAGTACCAACAGACGTG
GATAAGTGTTCCATCACCAGAAAAAC

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209393 protein sequence
Red=Cloning site Green=Tags(s)

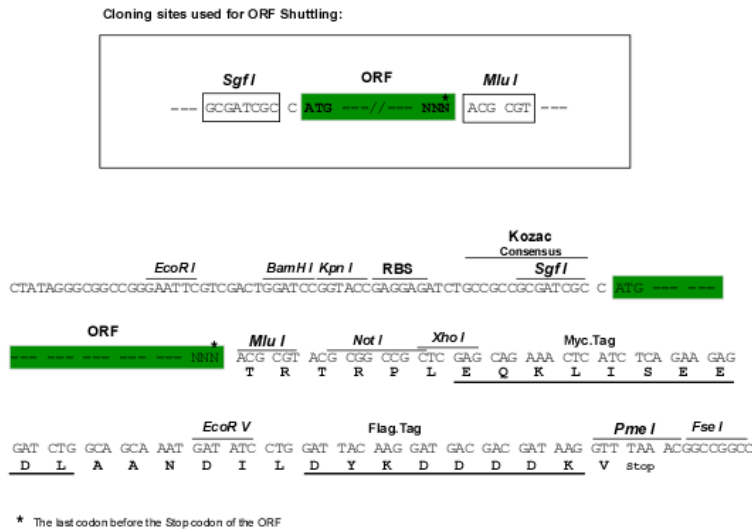
MSGFSTEERAAPFSLEYRVFLKNEKGQYISPFHDIPIYADKDVHFMVVEVPRWSNAKMEIATKDPLNPIK
 QDVKKGKLRVYVANLFPYKGYIWNYGAIPQTWEDPGHNDKHTGCCGNDPIDVCEIGSKVCARGEIIGVKV
 LGILAMIDEGETDWKVIAINVDDPDAANYNDINDVKRLKPGYLEATVDWFRYKVPDGKPENEFANAEF
 KDKDFAIDIIKSTHDHWKALVTKKTNGKGISCMNTTLESFPFKCDPDAARAIVDALPPPCESACTVPTDV
 DKWFHHQKN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6544_c06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021129

ORF Size: 867 bp

OTI Disclaimer: 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_021129.4](#)

RefSeq Size: 1316 bp

RefSeq ORF: 870 bp

Locus ID: 5464

UniProt ID: [Q15181](#)

Cytogenetics: 10q22.1

Domains: Pyrophosphatase

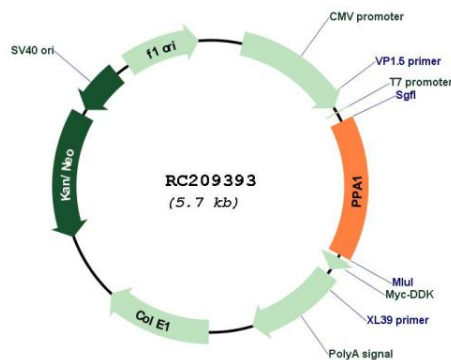
Protein Families: ES Cell Differentiation/IPS

Protein Pathways: Oxidative phosphorylation

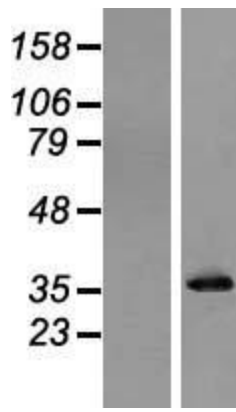
MW: 32.7 kDa

Gene Summary: The protein encoded by this gene is a member of the inorganic pyrophosphatase (PPase) family. PPases catalyze the hydrolysis of pyrophosphate to inorganic phosphate, which is important for the phosphate metabolism of cells. Studies of a similar protein in bovine suggested a cytoplasmic localization of this enzyme. [provided by RefSeq, Jul 2008]

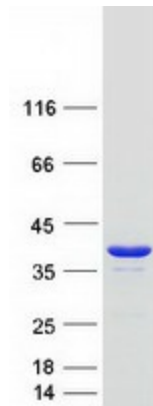
Product images:



Circular map for RC209393



Western blot validation of overexpression lysate (Cat# [LY412068]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209393 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PPA1 protein (Cat# [TP309393]). The protein was produced from HEK293T cells transfected with PPA1 cDNA clone (Cat# RC209393) using MegaTran 2.0 (Cat# [TT210002]).