

Product datasheet for **RC210562**

Acid Phosphatase 2 (ACP2) (NM_001610) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid Phosphatase 2 (ACP2) (NM_001610) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acid Phosphatase 2
Synonyms:	LAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC210562 representing NM_001610
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGGCAAGCGG[AT]CCGGCTGGAGCCGGCGGCTCTCCTCCAGCTCCTTCTCGGCGTGAACCTGG
 TGGTGATGCCGCCACCCGGGCCGGAGTCTGCGCTTCGTTACCTTGCTGTACCGCCATGGAGACCGTTT
 ACCAGTGAAGACATATCCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTTGGTCAGTTAAC
 AAGGAGGGGATGCTACAGCACTGGAACTGGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCTAAACA
 CCTTTATCACCGGAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGACTCTCATGAGTGCTGAGGC
 CAACCTGGCTGGACTTTCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCTATT
 CCTGTGCACACTGTGCCATCACTGAGGACAGGCTGTGAAGTCCCGTTGGGCCATGTCCCCGTATG
 AGCAGCTGCAGAACGAGACCCGGCAGACACCAGAGTATCAGAATGAGAGTTCTCGGAATGCACAATTTCT
 GGACATGGTGGCCAACGAGACAGGGCTTACAGACTGACTGGAGACCGTCTGGAATGTCTATGACACA
 CTCTTCTGTGAGCAAACGCACGGGCTGCGCCTGCGCCCTGGGCCCTACCCCAAACCATGCAGCGTCTCA
 GCCGGCTAAAGGACTTCAGTTCGCTTCTCTCGGAATCTACCAGCAGCGGAGAAGGCCCGGCTTCA
 GGGGGGAGTCTGCTGGCTCAGATAAGGAAGAACCTGACCCTAATGGCGACCACCTCCAGCTCCCCAAG
 CTGCTGGTTTACTCTGCGCACGACACTACCCTGGTTGCCCTGCAAATGGCACTGGATGTCTACAATGGT
 AACAGCCCCCTACGCTCCTGCCACATATTTGAACTGTACCAGGAAGATTCTGGGAATTTCTCAGTGA
 GATGTACTTTTCGGAACGAGAGTGACAAGCCCCCTGGCCGCTCAGCCTGCCTGGCTGCCCTACCGCTGC
 CCACTGCAGGACTTCTTCGCTCACAGAGCCCGTGTGCCCCAAGGATTGGCAGCAGGAGTGCCAGCTGG
 CAAGCGGTCCTGCAGACACAGAGGTGATTGTGGCTTGGCTGTATGTGGCTCCATCCTCTCCTCAT
 AGTGCTGCTCCTACCGTCTCTCCGGATGCAGGCCAGCCTCCTGGCTACCGCCACGTGCAGATGGG
 GAGGACCACGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210562 representing NM_001610
 Red=Cloning site Green=Tags(s)

MAGKRXXGWSRAALLQLLLGVNLVVMPPTRARSLRFVTLLYRHGDRSPVKYPKDPYQEEWPPQGFQGLT
 KEGMLQHWELGQALRQRYHGFLNTSYHRQEVYVRSTDFDRTLMSAEANLAGLFPNGMQRFNPNISWQPI
 PVHTVPI TEDRLKFPPLGPCPRYEQLNQNETRQTPEYQNESSRNAQFLDMVANETGLTDLTLETVWVYDT
 LFCEQTHGLRLLPPWASPQTMQRLSRLKDF SFRFLFGIYQQA EKARLQGGVLLAQIRKNL TLMATTSQLPK
 LLVYSAHDTTLVALQMALDVYNGEQAPYASCHIFELYQEDSGNFSVEMYFRNESDKAPWPLSLPGCPHRC
 PLQDFLRLTPEVVPKDWQEQECQLASGPADTEVIVALAVCGSILFLLIVLLLTVLFRMQAQPYPGRHVADG
 EDHA

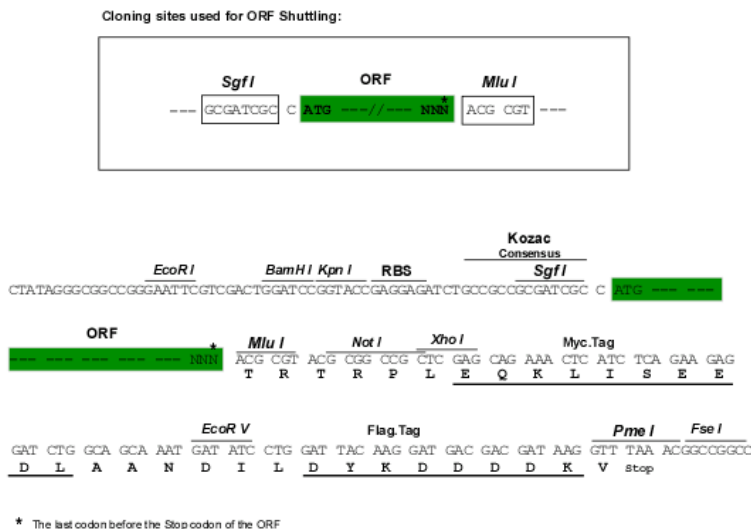
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja2181_d07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001610

ORF Size: 1270 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_001610.4](#)

RefSeq Size: 2218 bp

RefSeq ORF: 1272 bp

Locus ID: 53

UniProt ID: [P11117](#)

Cytogenetics: 11p11.2|11p12-p11

Domains: acid_phosphat

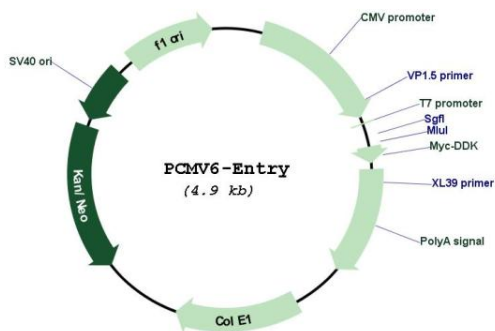
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Lysosome, Riboflavin metabolism

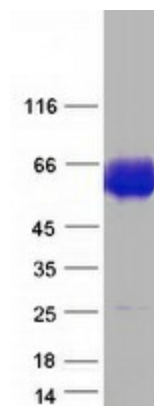
MW: 44.45 kDa

Gene Summary: The protein encoded by this gene belongs to the histidine acid phosphatase family, which hydrolyze orthophosphoric monoesters to alcohol and phosphate. This protein is localized to the lysosomal membrane, and is chemically and genetically distinct from the red cell acid phosphatase. Mice lacking this gene showed multiple defects, including bone structure alterations, lysosomal storage defects, and an increased tendency towards seizures. An enzymatically-inactive allele of this gene in mice showed severe growth retardation, hair-follicle abnormalities, and an ataxia-like phenotype. Alternatively spliced transcript variants have been found for this gene. A C-terminally extended isoform is also predicted to be produced by the use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism. [provided by RefSeq, Oct 2017]

Product images:



Circular map for RC210562



Coomassie blue staining of purified ACP2 protein (Cat# [TP310562]). The protein was produced from HEK293T cells transfected with ACP2 cDNA clone (Cat# RC210562) using MegaTran 2.0 (Cat# [TT210002]).