

Product datasheet for **RG210562**

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:	TurboGFP
Symbol:	Acid Phosphatase 2
Synonyms:	LAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210562 representing NM_001610 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGGCAAGCGGTCCGGCTGGAGCCGGGCGGCTCTCCTCCAGCTCCTTCTCGGCGTGAACCTGGTGG
TGATGCCGCCACCCGGGCCGGAGTCTGCGCTTCGTTACCTTGCTGTACCGCCATGGAGACCGTTCACC
AGTGAAGACATATCCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTGGTCAGTTAACCAAG
GAGGGGATGCTACAGCACTGGAACTGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCTAAACACCT
CTTATCACCGGCAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGGACTCTCATGAGTGTGAGGCCAA
CCTGGCTGGACTTCCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCTATTCTCT
GTGCACACTGTGCCATCACTGAGGACAGGCTGTGAAGTTCCCGTTGGGCCCATGTCCCGTTATGAGC
AGCTGCAGAACGAGACCCGGCAGACACCAGAGTATCAGAATGAGAGTTCTCGGAATGCACAATTTCTGGA
CATGGTGGCCAACGAGACAGGGCTTACAGACCTGACACTGGAGACCGTCTGGAATGTCTATGACACACTC
TTCTGTGAGCAAACGCACGGGCTGCGCCTGCCGCCCTGGGCTCACCCCAAACCATGCAGCGTCTCAGCC
GGCTAAAGGACTTCAGCTTCCGCTTCTCTTTCGGAATCTACCAGCAGCGGAGAAGGCCCGGCTTCAGGG
GGGAGTCTGCTGGCTCAGATAAGGAAGAACCTGACCCATATGGCGACCACCTCCAGCTCCCAAGCTG
CTGGTTTACTCTGCGCACGACACTACCTGGTTGCCCTGCAAATGGCACTGGATGTCAATATGGTGAAC
AAGCCCCCTACGCCTCTGCCACATATTTGAACTGTACCAGGAAGATTCTGGGAATTTCTCAGTGGAGAT
GTACTTTCGGAACGAGAGTGACAAGGCCCTGGCCGCTCAGCCTGCCTGGCTGCCTCACCGCTGCCCA
CTGCAGGACTTCTTCGCTCACAGAGCCGCTGTCGCCAAGGATTGGCAGCAGGAGTGCCAGCTGGCAA
GCGGTCTGCAGACACAGAGGTGATTGTGGCCTTGGCTGTATGTGGCTCCATCTCTCTCTCATAGT
GCTGCTCTCACCGTCTCTCCGGATGCAGGCCAGCCTCTGGCTACCGCCACGTGCGAGATGGGGAG
GACCACGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >RG210562 representing NM_001610
Red=Cloning site Green=Tags(s)

MAGKRSGWSRAALLQLLLGVNLVMPPTRARSLRFVTL LYRHGDRSPVKTYPKDPYQEEEWPGFGQLTK
 EGMLQHWELGQALRQRYHGFLNTSYHRQEVYVRSTDFDRTLMSAEANLAGLFPNGMQRFNPNISWQPIP
 VHTVPI TEDRLKFP LGPCPRYEQ LQNETRQTPEYQNESSRNAQFLDMVANETGLTDLTLETVWVNYDTL
 FCEQTHGLRLPPWASPQTMQRLSRLKDF SFRFLFGIYQQAEKARLQGGVLLAQIRKNL TLMATTSQLPKL
 LVYSAHDTTLVALQMALDVYNGEQAPYASCHIFELYQEDSGNFSVEMYFRNESDKAPWPLSLPGCPHRCP
 LQDFLRLTEPVVPKDWQEQCLASGPADTEVIVALAVCGSILFLLIIVLLLTVLFRMQAQP PGRHVADGE
 DHA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001610

ORF Size: 1269 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: 2109 bp

RefSeq ORF: 1272 bp

Locus ID: 53

UniProt ID: [P11117](#)

Cytogenetics: 11p11.2|11p12-p11

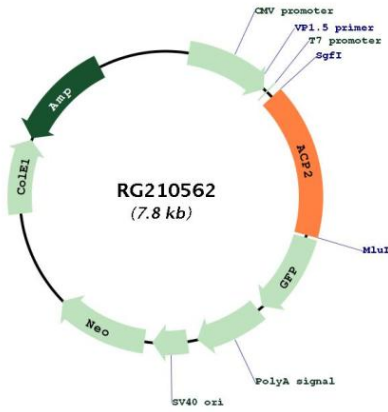
Domains: acid_phosphat

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Lysosome, Riboflavin metabolism

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 RG210562