

Product datasheet for **RG236798**

Acid Phosphatase 2 (ACP2) (NM_001302492) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid Phosphatase 2 (ACP2) (NM_001302492) 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:	>RG236798 representing NM_001302492. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGTGGCCAACGAGACAGGGCTTACAGACCTGACTGGAGACCGTCTGGAATGTCTATGACACACTC
TTCTGTGAGCAAACGCACGGGCTGCGCCTGCCGCCCTGGGCTCACCCAAACCATGCAGCGTCTCAGC
CGGCTAAAGGACTTCAGCTTCCGCTTCTCTTCGGAATCTACCAGCAGCGGAGAAGGCCCGCTTCAG
GGGGGAGTCTGCTGGCTCAGATAAGGAAGAACCTGACCCTAATGGCGACCACCTCCAGCTCCCAAG
CTGCTGGTTTACTCTGCGCAGCAGACTACCCTGGTTGCCCTGCAAATGGCACTGGATGTCTACAATGGT
GAACAAGCCCCCTACGCCTCCTGCCACATATTTGAACTGTACCAGGAAGATTCTGGGAATTTCTCAGTG
GAGATGTACTTTTCGGAACGAGAGTGACAAGGCCCCCTGGCGCTCAGCCTGCCTGGCTGCCCTCACCGC
TGCCCACTGCAGGACTTCTTCGCTCACAGAGCCCGTGTGCCAAGGATTGGCAGCAGGAGTGCCAG
CTGGCAAGCGGTCTGCAGACACAGAGGTGATTGTGGCCTGGCTGTATGTGGCTCCATCCTCTTCTC
CTCATAGTGTGCTCCTCACCGTCTTCCGGATGCAGGCCAGCCTCCTGGCTACCGCCACGTCGCA
GATGGGGAGGACCACGCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```



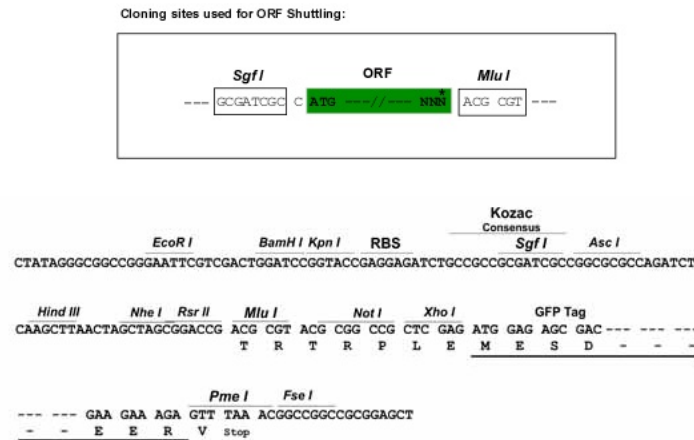
[View online »](#)

Protein Sequence: >Peptide sequence encoded by RG236798
 Blue=ORF Red=Cloning site Green=Tag(s)

MVANETGLTDLTLETVWNVYDTLFCEQTHGLRLPPWASPQTMQRLSRLKDFSRFLFGIYQQA EKARLQ
GGVLLAQIRKNL TLMATTSQLPKLLVYSAHDTTLVALQMALDVYNGEQAPYASCHIFEL YQEDSGNFSV
EMYFRNESDKAPWPLSLPGCPHRCPLQDFLRLTEPVVPKDWQEQECQLASGPADTEVIVALAVCGSILFL
LIVLLLLTVLFRMQAQP PGRHVADGEDHA
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001302492

ORF Size: 708 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).

RefSeq: [NM_001302492.1](#), [NP_001289421.1](#)

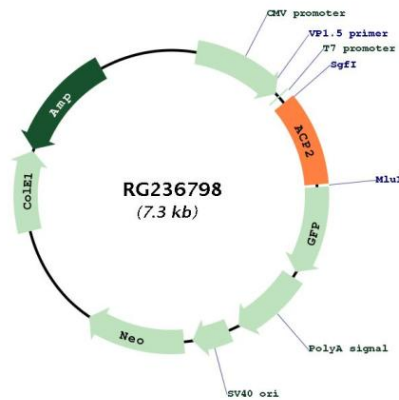
RefSeq Size: 2088 bp

RefSeq ORF: 711 bp

Locus ID: 53
UniProt ID: [P11117](#)
Cytogenetics: 11p11.2|11p12-p11
Protein Families: Druggable Genome, Transmembrane
Protein Pathways: Lysosome, Riboflavin metabolism
MW: 27.1 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 RG236798