

Product datasheet for **RG237719**

Acid Phosphatase 2 (ACP2) (NM_001302491) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid Phosphatase 2 (ACP2) (NM_001302491) 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:	>RG237719 representing NM_001302491. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGGGCAAGCGGTCCGGCTGGAGCCGGGCGGCTCTCCTCCAGCTCCTTCTCGGCGTGAACCTGGTG
GTGATGCCGCCACCCGGGCCGGAGTCTGCGCTTCGTTACCTTGCTGTACCGCCATGGAGACCGTTCA
CCAGTGAAGACATATCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTTGGTCAGTTAACC
AAGGAGGGGATGCTACAGCACTGGGAAGTGGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCTAAAC
ACCTCTTATCACCGCAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGGACTCTCATGAGTGTGAG
GCCAACCTGGCTGGACTTCCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCT
ATTCTGTGCACACTGTGCCATCACTGAGGACAGGCAAACGCACGGGCTGCGCCTGCCGCCCTGGGCC
TACCCCCAAACATGCAGCGTCTCAGCCGGCTAAAGGACTTCAGCTTCCGCTTCCCTTCCGGAATCTAC
CAGCAGGCGGAGAAGGCCGGCTTCAGGGGGGAGTCTGCTGGCTCAGATAAGGAAGAACCTGACCCTA
ATGGCGACCACCTCCCAGCTCCCAAGCTGCTGGTTTACTCTGCGCACGACACTACCCTGGTTGCCCTG
CAAATGGCACTGGATGTCTACAATGGTGAACAAGCCCCCTACGCCTCCTGCCACATATTTGAACTGTAC
CAGGAAGATTCTGGGAATTTCTCAGTGGAGATGTACTTTCGGAACGAGAGTGACAAGGCCCCCTGGCCG
CTCAGCCTGCCTGGCTGCCCTCACCGCTGCCACTGCAGGACTTCTTCCGCTCACAGAGCCCGTCGTG
CCCAAGGATTGGCAGCAGGAGTGCAGCTGGCAAGCGGTCCTGCAGACACAGAGGTGATTGTGCCCTTG
GCTGTATGTGGCTCCATCCTCTTCTCCTCATAGTGTGCTCCTCACCGTCTCTCCGGATGCAGGCC
CAGCCTCTGGCTACCGCCACGTCGCAGATGGGGAGGACCACGCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG237719
 Blue=ORF Red=Cloning site Green=Tag(s)

MAGKRSGWSRAALLQLLLGVNLVMPPTRARSLRFVTLRYRHGDRSPVKTYPKDPYQEEEWPOGFGQLT
 KEGMLQHWELGQALRQRYHGFLNTSYHRQEVYVRSTDFDRTLMSAEANLAGLFPNGMQRFNPNISWQP
 IPVHTVPITEDRQTHGLRLPPWASPQTMQRLSRLKDFSRFLFGIYQQA EKARLQGGVLLAQIRKNLTL
 MATTSQLPKLLVYSAHD TTLVALQMALDVYNGEQAPYASCHIFELYQEDSGNFSVEMYFRNESDKAPWP
 LSLPGCPHRCPLQDFLRLTEPVVPKDWQEQCLASGPADTEVIVALAVCGSILFLLIVLLLVLFMRQA
 QPPGYR HVADGEDHA
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYP SGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001302491

ORF Size: 1080 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).

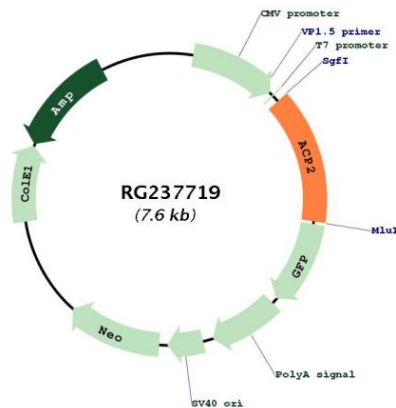
RefSeq: [NM_001302491.1](#), [NP_001289420.1](#)

RefSeq Size: 1970 bp

RefSeq ORF: 1083 bp
Locus ID: 53
UniProt ID: [P11117](#)
Cytogenetics: 11p11.2|11p12-p11
Protein Families: Druggable Genome, Transmembrane
Protein Pathways: Lysosome, Riboflavin metabolism
MW: 41.4 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 RG237719