

Product datasheet for RC237719

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:	Myc-DDK
Symbol:	ACP2
Synonyms:	LAP
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237719 representing NM_001302491 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGGGCAAGCGGTCCGGCTGGAGCCGGGGCTCTCCTCCAGCTCCTTCTCGGCGTGAACCTGGTGG
TGATGCCGCCACCCGGGCCGGAGTCTGCGCTTCGTTACCTTGTGTACCGCCATGGAGACCGTTCACC
AGTGAAGACATATCCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTTGGTCAGTTAACCAAG
GAGGGGATGCTACAGCACTGGGAACTGGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCCTAAACACCT
CTTATCACCGGCAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGGACTCTCATGAGTGTGAGGCCAA
CCTGGCTGGACTTCCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCTATTCTT
GTGCACACTGTGCCATCACTGAGGACAGGCAACGCACGGGCTGCGCCTGCCGCCCTGGGCCTCACCCC
AAACCATGCAGCGTCTCAGCCGGCTAAAGGACTTCAGCTTCCGCTTCTTTCGGAATCTACCAGCAGGC
GGAGAAGGCCCGGCTTCAGGGGGGAGTCTGCTGGCTCAGATAAGGAAGAACCTGACCCTAATGGCGACC
ACCTCCCAGCTCCCCAAGCTGCTGGTTTACTCTGCGCACGACACTACCCTGGTTGCCCTGCAAAATGGCAC
TGGATGTCTACAATGGTGAACAAGCCCCCTACGCCTCTGCCACATATTTGAAGTGTACCAAGGAGATT
TGGGAATTTCTCAGTGGAGATGTACTTTGGAACGAGAGTGACAAGGCCCCCTGGCCGCTCAGCCTGCCT
GGCTGCCCTCACCGCTGCCCACTGCAGGACTTCCTTCGCCTCACAGAGCCCGTGTGCCCAAGGATTGGC
AGCAGGAGTGCCAGCTGGCAAGCGGCTCCTGCAGACACAGAGGTGATTGTGGCCTTGGCTGTATGTGGCTC
CATCCTTCTCCTCATAGTGTGCTCCTCACCGTCTCTTCCGGATGCAGGCCAGCCTCCTGGCTAC
CGCCACGTGCGAGATGGGAGGACCACGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC237719 representing NM_001302491
Red=Cloning site Green=Tags(s)

MAGKRSGWSRAALLQLLLGVNLVMPPTRARSLRFVTLRYHGDRSPVKTYPKDPYQEEEWPGFGQLTK
 EGMLQHWELGQALRQRYHGFLNTSYHRQEVYVVRSTDFDRTLMSAEANLAGLFPPNGMQRFNPNISWQPIP
 VHTVPIITEDRQTHGLRLPPWASPQTMQRLSRLKDFSRFLFGIYQQAERLQGGVLLAQIRKNLTLMAT
 TSQLPKLLVYSAHDTTLVALQMALDVYNGEQAPYASCHIFELYQEDSGNFVEMYFRNESDKAPWPLSLP
 GCPHRCPLQDFLRLTEPVVPKDWQQEQCLASGPADTEVIVALAVCGSILFLLIVLLLTVLFRMQAQP
 PPGY
 RHVADGEDHA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

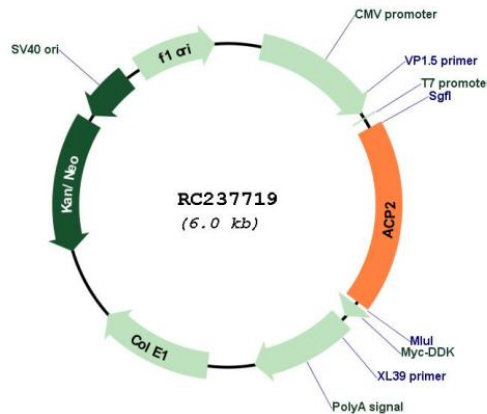
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



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).
Reconstitution Method:	<ol style="list-style-type: none">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_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]