

Product datasheet for **RC237926**

Acid Phosphatase 2 (ACP2) (NM_001302490) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid Phosphatase 2 (ACP2) (NM_001302490) 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:	>RC237926 representing NM_001302490 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCGGGCAAGCGGTCCGGCTGGAGCCGGGCGGCTCTCCTCCAGCTCCTTCTCGGCGTGAACCTGGTGG
TGATGCCGCCACCCGGGCCCGGAGTCTCGCTTCGTTACCTTGGAGGGGATGCTACAGCACTGGGAAC
GGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCTAAACACCTTTATCACCGCAAGAGGTTTATGTG
CGAAGCACAGACTTTGACCGGACTCTCATGAGTGTGAGGCCAACCTGGCTGGACTCTTCCCTCCCAACG
GGATGCAGCGCTCAACCCGAACATCTCGTGGCAGCCTATTCTGTGCACACTGTGCCATCACTGAGGA
CAGGCTGTGAAGTTCGCCGTTGGGCCATGTCCCCGTTATGAGCAGCTGCAGAACGAGACCCGGCAGACA
CCAGAGTATCAGAATGAGAGTTCCTCGGAATGCACAATTTCTGGACATGGTGGCAACGAGACAGGGCTTA
CAGACCTGACACTGGAGACCGTCTGGAATGTCTATGACACACTTTCTGTGAGCAAACGCACGGGCTGCG
CCTGCCGCCCTGGGCTCACCCAAACCATGCAGCGTCTCAGCCGGCTAAAGGACTTCAGCTTCCGCTTC
CTCTTCGGAATCTACCAGCAGCGGAGAAGGCCGGCTCAGGGGGAGTCTGCTGGCTCAGATAAGGA
AGAACCTGACCCTAATGGCGACCACCTCCAGCTCCCCAAGCTGCTGGTTACTCTGCGCAGCAGACTAC
CCTGGTTGCCCTGCAATGGCACTGGATGTCTACAATGGTGAACAAGCCCTACGCCTCCTGCCACATA
TTTGAAGTGTACCAGGAAGATTCTGGGAATTTCTCAGTGGAGATGTACTTTGGAACGAGAGTGACAAGG
CCCCCTGGCCGCTCAGCCTGCCTGGCTGCCCTACCGCTGCCACTGCAGGACTTCTTCGCCTCACAGA
GCCCCGTGTCGCAAGGATTGGCAGCAGGAGTCCAGCTGGCAAGCGGTCTGCAGACACAGAGGTGATT
GTGGCCTTGGCTGTATGTGGCTCCATCCTCTTCTCCTCATAGTGTCTCCTCACCGTCTCTCCGGA
TGCAGGCCAGCCTCCTGGCTACCGCCACGTGCGAGATGGGGAGGACCACGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC237926 representing NM_001302490
 Red=Cloning site Green=Tags(s)

MAGKRSGWRAALLQLLLGVNLVMPPTRARSLRFVTLEGMLQHWELGQALRQRYHGFLNTSYHRQEVVY
 RSTDFDRTLMSAEANLAGLFPPNGMQRFNPNISWQPIPVHTVPIITEDRLKLFPLGPCPRYEQLNQNETRQT
 PEYQNESSRNAQFLDMVANETGLDLDLTLTVWNVYDTLFCQTHGLRLPPWASPTMQRLSRLKDFSFRR
 LFGIYQQA EKARLQGGVLLAQIRKNTLMATTSQLPKLLVYSAHD TTLVALQMALDVYNGEQAPYASCHI
 FELYQEDSGNFSVEMYFRNESDKAPWPLSLPGCPHRCPLQDFLRLTEPVVPKDWQEQCLASGPADTEVI
 VALAVCGSILFLLIVLLLTVLFRMQAQPGRHVADGEDHA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

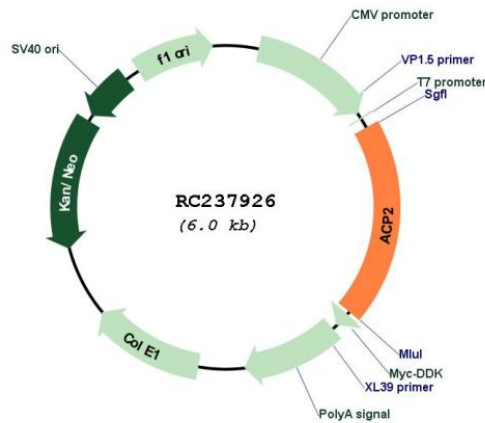
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001302490

ORF Size:	1173 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_001302490.1 , NP_001289419.1
RefSeq Size:	2063 bp
RefSeq ORF:	1176 bp
Locus ID:	53
UniProt ID:	P11117
Cytogenetics:	11p11.2 11p12-p11
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Lysosome, Riboflavin metabolism
MW:	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]