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Product datasheet for RG237953

Acid Phosphatase 2 (ACP2) (NM_001302489) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid Phosphatase 2 (ACP2) (NM_001302489) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACP2
Synonyms:	LAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG237953 representing NM_001302489.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGAGTCAGGATGACCGAATACGTCGGGCTGTACCGCCATGGAGACCGTTCACCAGTGAAGACATAT
CCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTTGGTCAGTTAACCAAGGAGGGGATGCTA
CAGCACTGGGAACTGGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCCTAAACACCTCTTATCACCGG
CAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGGACTCTCATGAGTGCTGAGGCCAACCTGGCTGGA
CTCTTCCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCTATTCCTGTGCACACT
GTGCCCATCACTGAGGACAGGCTGCTGAAGTTCCCGTTGGGCCCATGTCCCCGTTATGAGCAGCTGCAG
AACGAGACCCGGCAGACACCAGAGTATCAGAATGAGAGTTCTCGGAATGCACAATTTCTGGACATGGTG
GCCAACGAGACAGGGCTTACAGACCTGACACTGGAGACCGTCTGGAATGTCTATGACACACTCTTCTGT
GAGCAAACGCACGGGCTGCGCCTGCCGCCCTGGGCCTCACCCCAAACCATGCAGCGTCTCAGCCGGCTA
AAGGACTTCAGCTTCCGCTTCCTCTTCGGAATCTACCAGCAGGCGGAGAAGGCCCGGCTTCAGGGGGGA
GTCCTGCTGGCTCAGATAAGGAAGAACCTGACCCTAATGGCGACCACCTCCCAGCTCCCCAAGCTGCTG
GTTTACTCTGCGCACGACACTACCCTGGTTGCCCTGCAAATGGCACTGGATGTCTACAATGGTGAACAA
GCCCCCTACGCCTCCTGCCACATATTTGAACTGTACCAGGAAGATTCTGGGAATTTCTCAGTGGAGATG
TACTTTCGGAACGAGAGTGACAAGGCCCCCTGGCCGCTCAGCCTGCCTGGCTGCCCTCACCGCTGCCCA
CTGCAGGACTTCCTTCGCCTCACAGAGCCCGTCGTGCCCAAGGATTGGCAGCAGGAGTGCCAGCTGGCA
AGCGGTCCTGCAGACACAGAGGTGATTGTGGCCTTGGCTGTATGTGGCTCCATCCTCTTCCTCCTCATA
GTGCTGCTCCTCACCGTCCTCTTCCGGATGCAGGCCCAGCCTCCTGGCTACCGCCACGTCGCAGATGGG
GAGGACCACGCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

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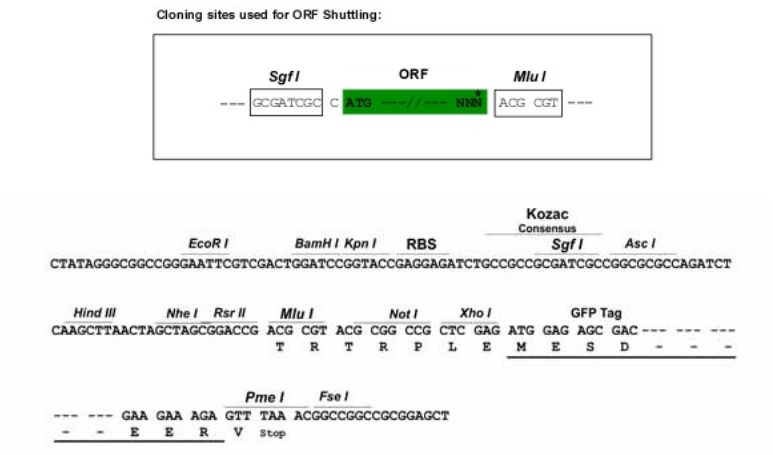
Protein Sequence:

>Peptide sequence encoded by RG237953
Blue=ORF Red=Cloning site Green=Tag(s)

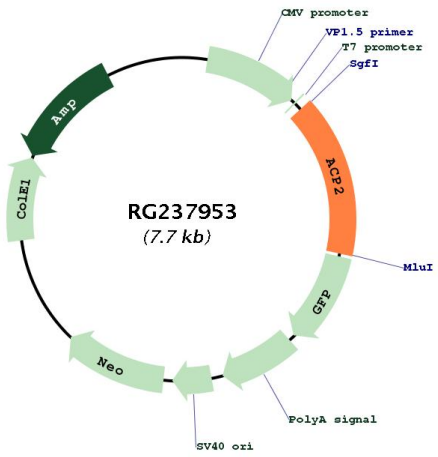
MGVRMTEYVGLYRHGDRSPVKTYPKDPYQEEEWPQGFGQLTKEGMLQHWELGQALRQRYHGFLNTSYHR
QEVYVRSTDFDRTLMSAEANLAGLFPPNGMQRFNPNISWQPIPVHTVPITEDRLLKFPLGPCPRYEQLQ
NETRQTPEYQNESSRNAQFLDMVANETGLTDLTLETVWNVYDTLFCEQTHGLRLPPWASPQTMQRLSRL
KDFSFRFLFGIYQQAEKARLQGGVLLAQIRKNLTLMATTSQLPKLLVYSAHDTTLVALQMALDVYNGEQ
APYASCHIFELYQEDSGNFSVEMYFRNESDKAPWPLSLPGCPHRCPLQDFLRLTEPVVPKDWQQECQLA
SGPADTEVIVALAVCGSILFLLIVLLLTVLFRMQAQPPGYRHVADGEDHA
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001302489
ORF Size:	1185 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_001302489.1, NP_001289418.1
RefSeq Size:	2131 bp
RefSeq ORF:	1188 bp
Locus ID:	53
UniProt ID:	P11117
Cytogenetics:	11p11.2|11p12-p11
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Lysosome, Riboflavin metabolism
MW:	45.8 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]