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Product datasheet for RG225147

Acid Phosphatase 2 (ACP2) (NM_001131064) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid Phosphatase 2 (ACP2) (NM_001131064) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACP2
Synonyms:	acid phosphatase 2, lysosomal; Acp-2; LAP; OTTMUSP00000015308
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG225147 representing NM_001131064
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGGCAAGCGGTCCGGCTGGAGCCGGGCGGCTCTCCTCCAGCTCCTTCTCGGCGTGAACCTGGTGG
TGATGCCGCCCACCCGGGCCCGGAGTCTGCGCTTCGTTACCTTGCTGTACCGCCATGGAGACCGTTCACC
AGTGAAGACATATCCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTTGGTCAGTTAACCAAG
GAGGGGATGCTACAGCACTGGGAACTGGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCCTAAACACCT
CTTATCACCGGCAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGGACTCTCATGAGTGCTGAGGCCAA
CCTGGCTGGACTCTTCCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCTATTCCT
GTGCACACTGTGCCCATCACTGAGGACAGGGTAAGAGTGGCCAGCCCTTCCCTGGGGTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG225147 representing NM_001131064
Red=Cloning site Green=Tags(s)

MAGKRSGWSRAALLQLLLGVNLVVMPPTRARSLRFVTLLYRHGDRSPVKTYPKDPYQEEEWPQGFGQLTK
EGMLQHWELGQALRQRYHGFLNTSYHRQEVYVRSTDFDRTLMSAEANLAGLFPPNGMQRFNPNISWQPIP
VHTVPITEDRVRVASPSLGW

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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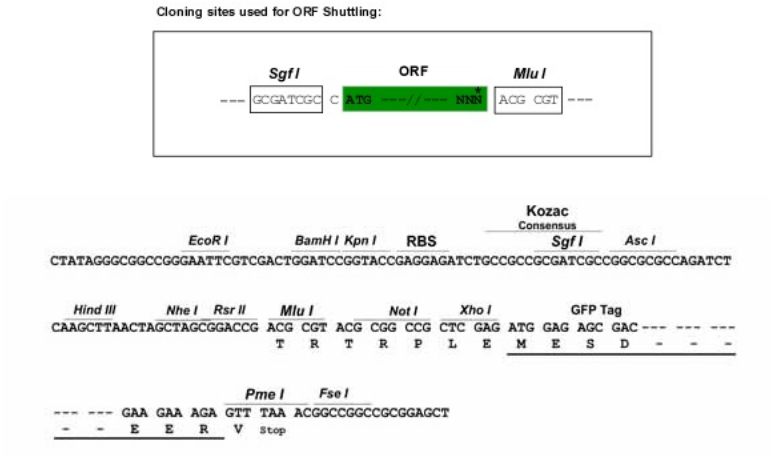
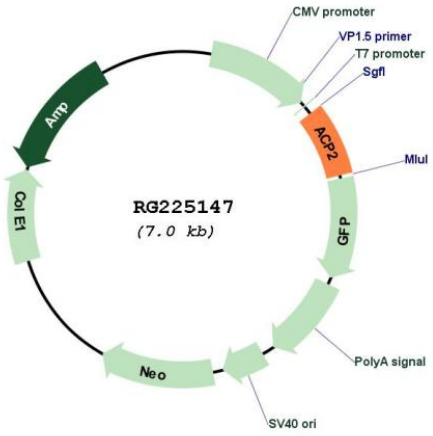
Cloning Scheme:



Plasmid Map:



ACCN:	NM_001131064
ORF Size:	480 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:	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_001131064.1, NP_001124536.1
RefSeq Size:	730 bp
RefSeq ORF:	483 bp
Locus ID:	53
Cytogenetics:	11p11.2|11p12-p11
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Lysosome, Riboflavin metabolism
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]