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Product datasheet for RC225152

HRASLS3 (PLA2G16) (NM_001128203) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HRASLS3 (PLA2G16) (NM_001128203) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HRASLS3
Synonyms:	AdPLA; H-REV107; H-REV107-1; HRASLS3; HREV107; HREV107-1; HREV107-3; HRSL3; PLA2G16; PLAAT-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC225152 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGTGCGCCCATTCCAGAGCCTAAGCCTGGAGACCTGATTGAGATTTTTCGCCCTTTCTACAGACACT
GGGCCATCTATGTTGGCGATGGATATGTGGTTCATCTGGCCCCTCCAAGTGAGGTCGCAGGAGCTGGTGC
AGCCAGTGTCATGTCCGCCCTGACTGACAAGGCCATCGTGAAGAAGGAATTGCTGTATGATGTGGCCGGG
AGTGACAAGTACCAGGTCAACAACAAACATGATGACAAGTACTCGCCGCTGCCCTGCAGCAAAATCATCC
AGCGGGCGGAGGAGCTGGTGGGGCAGGAGGTGCTCTACAAGCTGACCAGTGAGAACTGCGAGCACTTTGT
GAATGAGCTGCGCTATGGAGTCGCCCGCAGTGACCAGGTCAGAGATGTCATCATCGCTGCAAGCGTTGCA
GGAATGGGCTTGGCAGCCATGAGCCTTATTGGAGTCATGTTCTCAAGAAACAAGCGACAAAAGCAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225152 protein sequence
Red=Cloning site Green=Tags(s)

MRAPIPEPKPGDLIEIFRPFYRHWAIYVGDGYVVHLAPPSEVAGAGAASVMSALTDKAIVKKELLYDVAG
SDKYQVNNKHDDKYSPLPCSKIIQRAEELVGQEVLYKLTSENCEHFVNELRYGVARSDQVRDVIIAASVA
GMGLAAMSLIGVMFSRNKRQKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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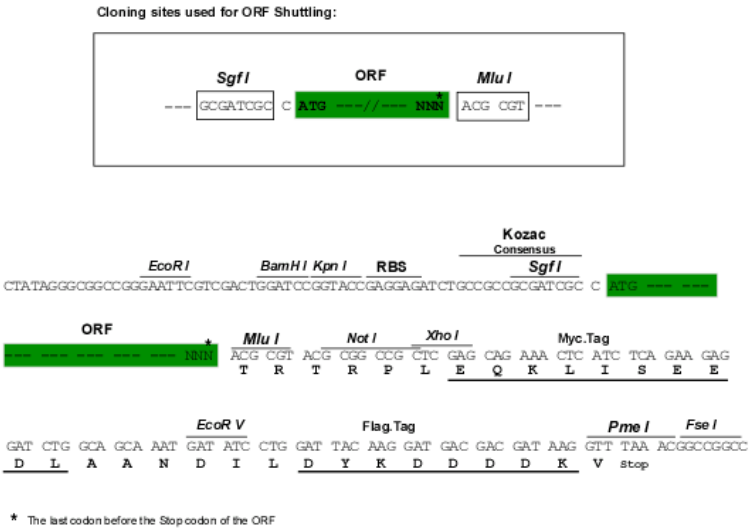
Chromatograms: https://cdn.origene.com/chromatograms/mk6385_c03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001128203

ORF Size: 486 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_001128203.1, NP_001121675.1

RefSeq Size: 1111 bp

RefSeq ORF: 489 bp

Locus ID: 11145

UniProt ID: P53816

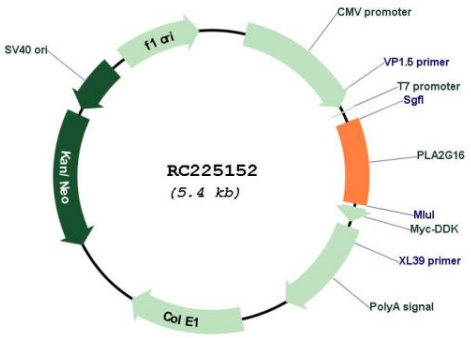
Cytogenetics: 11q12.3-q13.1

Protein Families: Druggable Genome, Transmembrane

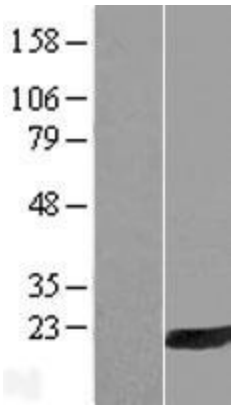
MW: 17.9 kDa

Gene Summary: Exhibits both phospholipase A1/2 and acyltransferase activities (PubMed:19615464, PubMed:19047760, PubMed:22825852, PubMed:22605381, PubMed:26503625). Shows phospholipase A1 (PLA1) and A2 (PLA2) activity, catalyzing the calcium-independent release of fatty acids from the sn-1 or sn-2 position of glycerophospholipids (PubMed:19615464, PubMed:19047760, PubMed:22825852, PubMed:22605381, PubMed:22923616). For most substrates, PLA1 activity is much higher than PLA2 activity (PubMed:19615464). Shows O-acyltransferase activity,catalyzing the transfer of a fatty acyl group from glycerophospholipid to the hydroxyl group of lysophospholipid (PubMed:19615464). Shows N-acyltransferase activity, catalyzing the calcium-independent transfer of a fatty acyl group at the sn-1 position of phosphatidylcholine (PC) and other glycerophospholipids to the primary amine of phosphatidylethanolamine (PE), forming N-acylphosphatidylethanolamine (NAPE), which serves as precursor for N-acylethanolamines (NAEs) (PubMed:19615464, PubMed:19047760, PubMed:22825852, PubMed:22605381). Exhibits high N-acyltransferase activity and low phospholipase A1/2 activity (PubMed:22825852).[UniProtKB/Swiss-Prot Function]

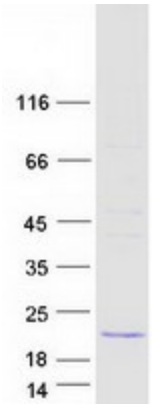
Product images:



Circular map for RC225152



Western blot validation of overexpression lysate (Cat# [LY426918]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225152 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PLAAT3 protein (Cat# [TP325152]). The protein was produced from HEK293T cells transfected with PLAAT3 cDNA clone (Cat# RC225152) using MegaTran 2.0 (Cat# [TT210002]).