

OriGene Technologies, Inc.

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Product datasheet for RC231193L4V

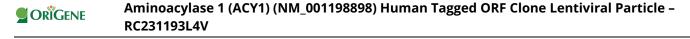
Aminoacylase 1 (ACY1) (NM_001198898) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Aminoacylase 1 (ACY1) (NM_001198898) Human Tagged ORF Clone Lentiviral Particle
Symbol:	Aminoacylase 1
Synonyms:	ACY-1; ACY1D; HEL-S-5
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_001198898
ORF Size:	1119 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC231193).
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. <u>More info</u>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<u>NM 001198898.1</u>
RefSeq ORF:	1122 bp
Locus ID:	95
UniProt ID:	<u>Q03154</u>
Cytogenetics:	3p21.2
Protein Families:	Protease
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
MW:	42.6 kDa



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Gene Summary:This gene encodes a cytosolic, homodimeric, zinc-binding enzyme that catalyzes the
hydrolysis of acylated L-amino acids to L-amino acids and an acyl group, and has been
postulated to function in the catabolism and salvage of acylated amino acids. This gene is
located on chromosome 3p21.1, a region reduced to homozygosity in small-cell lung cancer
(SCLC), and its expression has been reported to be reduced or undetectable in SCLC cell lines
and tumors. The amino acid sequence of human aminoacylase-1 is highly homologous to the
porcine counterpart, and this enzyme is the first member of a new family of zinc-binding
enzymes. Mutations in this gene cause aminoacylase-1 deficiency, a metabolic disorder
characterized by central nervous system defects and increased urinary excretion of N-
acetylated amino acids. Alternative splicing of this gene results in multiple transcript variants.
Read-through transcription also exists between this gene and the upstream ABHD14A
(abhydrolase domain containing 14A) gene, as represented in GeneID:100526760. A related
pseudogene has been identified on chromosome 18. [provided by RefSeq, Nov 2010]

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