

# Recombinant Human ACY1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. ACY1-4843H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	ACY1 MS Standard C13 and N15-labeled recombinant protein (NP_000657) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>Description</b>	<p>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.</p>
<b>Molecular Mass</b>	45.9 kDa

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**AA Sequence**

MTSKGPEEEHPSVTLFRQYLRIQVQPKPDYGAAVAFFETARQLGLGCQKVEVAP  
 GYVVTVLTPGNTPLSSILLNSHTDVVPVFKEHWSHDPFEAFKDSEGYIYARGAQD  
 MKCVSIQYLEAVRRLKVEGHRFPRTIHMTFVPDEEVGGHQGMELFVQRPEFHALRA  
 GFALDEGIANPTDAFTVFYSERSPWWVRVTSTGRPGHASRFMEDTAAEKLHKVNS  
 ILAFREKEWQRLQSNPHLKEGSVTSVNLTKLEGGVAYNVIPATMSASFDFRVAPDVD  
 FKAFFEEQLQSWCQAAGEGVTLEFAQKWMHPQVTPPTDDSNPWWAAFSRVCKDMNL  
 TLEPEIMPAATDNRYIRAVGVPALGFSPMNRTPVLLHDHDERLHEAVFLRGVDIYTRL  
 LPALASVPALPSDSTRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Purity** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Stability** Stable for 3 months from receipt of products under proper storage and handling conditions.

**Storage** Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

**Concentration** 50 µg/mL as determined by BCA

**Storage Buffer** 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

## GENE INFORMATION

**Gene Name** *ACY1* aminoacylase 1 [ Homo sapiens (human) ]

**Official Symbol** *ACY1*

**Synonyms** ACY1; aminoacylase 1; aminoacylase-1; acylase; N-acyl-L-amino-acid amidohydrolase; ACY-1; ACY1D;

**Gene ID** 95

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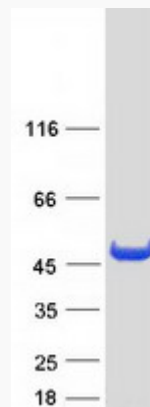
mRNA Refseq [NM\\_000666](#)

Protein Refseq [NP\\_000657](#)

MIM [104620](#)

UniProt ID [Q03154](#)

SDS-PAGE



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