Recombinant Full Length Human ACY1 Protein, GST-tagged

Cat. No. ACY1-836HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human ACY1 full-length ORF (AAH00545, 1 a.a. - 408 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	408 amino acids
Description	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]

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Molecular Mass	70.62 kDa
AA Sequence	MTSKGPAEEH PSVTLFRQYL RIRTVQPKPD YGAAVAFFEE TARQLGLGCQ KVEVAPGYVV TVLTWPGTNP TLSSILLNSH TDVVPVFKEH WSHDPFEAFK DSEGYIYARG AQDVKCVSIQ YLEAVRRLKV EGHRFPRTIH MTFVPDEEVG GHQGMELFVQ RPEFHALRAG FALDEGIANP TDAFTVFYSE RSPWWVRVTS TGRPGHASRF MEDTAAEKLH KVVNSILAFR EKEWQRLQSN PHLKEGSVTS VNLTKLEGGV AYNVIPATMS ASFDFRVAPD VDFKAFEEQL QSWCQAAGEG VTLEFAQKWM HPQVTPTDDS NPWWAAFSRV CKDMNLTLEP EIMPAATDNR YIRAVGVPAL GFSPMNRTPV LLHDHDERLH EAVFLRGVDI YTRLLPALAS VPALPSDS
Applications	Enzyme-linked Immunoabsorbent Assay Western Blot (Recombinant protein) Antibody Production Protein Array
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name	ACY1 aminoacylase 1 [Homo sapiens]
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

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