

Recombinant Human ACY1, His-tagged

Cat. No. ACY1-26570TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant full length Human Aminoacylase 1 with an N terminal His tag; 428 amino acids including tag, predicted MWt 48kDa.

Species

Human

Source

E.coli

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.

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Conjugation	HIS
Molecular Weight	48.000kDa inclusive of tags
Tissue specificity	Expression is highest in kidney, strong in brain and weaker in placenta and spleen.
Form	Liquid
Purity	>90% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 10% Glycerol, 20mM Tris HCl, 1mM DTT, pH 8.0
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHHSSGLVPRGSHMTSKGP EEEHPSVTLFRQYLRI RTVQPKPDYGA AV AFFEETARQLGLGCQKVEVAPGYVVTVLTWPGTNPTLSSILLNSHTDVVPVFKEHW SHDPFEAFK DSEGYIYARGAQDMKCVSIQYLEAVRRLKVEGHRFPRTIHMTFVPDEE VGGHQGMELFVQRPEFHALRAGFALDEGIANPTDAFTVFYSPSPWWVRVTSTGR PGHASRFMEDTAAEKLHKV VNSILAFREKEWQRLQSNPHLKEGSVTSVNLT KLEGG VAYNVIPATMSASFDFRVAPDVDFKAFEEQLQSWCQAAGEGVTLEFAQKWMHPQV TPTDDSNPWWAAFSRVCKDMNLTLEPEIMPAATDNRYIRAVGV PALGFSPMNRTPV LLHDHDERLHEAVFLRGVDIYTRLLPALASVPALPSDS
Sequence Similarities	Belongs to the peptidase M20A family.
GENE INFORMATION	
Gene ID	ACY1 aminoacylase 1 [Homo sapiens]

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Official Symbol	ACY1
Synonyms	ACY1; aminoacylase 1; aminoacylase-1;