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Product datasheet for PH301284

Aminoacylase 1 (ACY1) (NM_000666) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	ACY1 MS Standard C13 and N15-labeled recombinant protein (NP_000657)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC201284
Predicted MW:	45.9 kDa
Protein Sequence:	>RC201284 protein sequence Red=Cloning site Green=Tags(s) MTSKGPEEEHPSVTLFRQYLRIRTVQPKPDYGAAVAFFEETARQLGLGCQKVEVAPGYVVTVLTWPGTNP TLSSILLNSHTDVVPVFKEHWSHDPFEAFKDSEGYIYARGAQDMKCVSIQYLEAVRRLKVEGHRFPRTIH MTFVPDEEVGGHQGMELFVQRPEFHALRAGFALDEGIANPTDAFTVFYSERSPWWVRVTSTGRPGHASRF MEDTAAEKLHKVVNSILAFREKEWQRLQSNPHLKEGSVTSVNLTKLEGGVAYNVIPATMSASFDFRVAPD VDFKAFEEQLQSWCQAAGEGVTLEFAQKWMHPQVTPTDDSNPWWAAFSRVCKDMNLTLEPEIMPAATDNR YIRAVGVPALGFSPMNRTPVLLHDHDERLHEAVFLRGVDIYTRLLPALASVPALPSDS TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_000657
RefSeq Size:	1678
RefSeq ORF:	1224
Synonyms:	ACY-1; ACY1D; HEL-S-5
Locus ID:	95

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UniProt ID: Q03154, V9HWA0

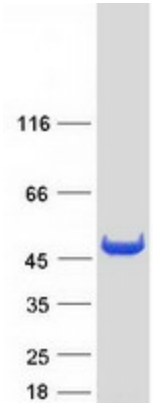
Cytogenetics: 3p21.2

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]

Protein Families: Protease

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

Product images:



Coomassie blue staining of purified ACY1 protein (Cat# [TP301284]). The protein was produced from HEK293T cells transfected with ACY1 cDNA clone (Cat# [RC201284]) using MegaTran 2.0 (Cat# [TT210002]).