Recombinant Human Aminoacylase 1, T7-tagged

Cat. No. ACY1-27H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Aminoacylase-1 produced in*E.Coli*is a non-glycosylated, polypeptide chain containing amino acids 1-408 and having a total molecular mass of 46.9 kda. ACY-1 contains T7 tag at N-terminus. ACY1 is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	1-408 a.a.
Description	Aminoacylase-1 is a cytosolic, homodimeric, zinc-binding enzyme that catalyzes the hydrolysis of acylated L-amino acids to L-amino acids and acyl group, and has been postulated to function in the catabolism and salvage of acylated amino acids. ACY1 has been assigned to 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 ACY1 is the first member of a new family of zinc-binding enzymes.
Physical Appearance	Sterile Filtered clear solution.
Purity	Greater than 95.0% as determined by SDS-PAGE.
Formulation	Aminoacylase-1 at a concentration of 0.1 mg/ml in 10 mM Tris, pH 8.0, 0.1% Triton X-

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

	100 and 0.002% NaN3.
Applications	• ELISA • MS • Inhibition Assays • Western Blotting.
Stability	ACYLASE although stable at 14°C for 1 week, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	ACY1 aminoacylase 1 [Homo sapiens]
Synonyms	ACY1; aminoacylase 1; ACY1D; ACYLASE; aminoacylase-1;N-acyl-L-amino-acid amidohydrolase; ACY-1; EC 3.5.1.14; N-acyl-L-amino-acid amidohydrolase
Gene ID	95
mRNA Refseq	NM_000666
Protein Refseq	NP_000657
UniProt ID	Q03154
Chromosome Location	3p21.1
MIM	104620
Pathway	Arginine and proline metabolism; Biosynthesis of alkaloids derived from ornithine, lysine and nicotinic acid; Metabolic pathways

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Function	aminoacylase activity; hydrolase activity; metal ion binding; metal ion binding; metallopeptidase activity; protein dimerization activity; zinc ion binding
PDB rendering based on 1q7l.	

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