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Product datasheet for CF503191

Aminoacylase 1 (ACY1) Mouse Monoclonal Antibody [Clone ID: OTI2B5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI2B5
Applications:	FC, WB
Recommended Dilution:	WB 1:2000, FLOW 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human ACY1(NP_000657) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	45.7 kDa
Gene Name:	aminoacylase 1
Database Link:	NP_000657 Entrez Gene 109652 MouseEntrez Gene 300981 RatEntrez Gene 95 Human Q03154

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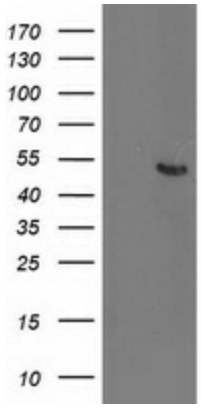
Background: This gene encodes a cytosolic, homodimeric, zinc-binding enzyme that catalyzes the hydrolysis of acylated L-amino acids to L-amino acids and an acyl group, and has been postulated to function in the catabolism and salvage of acylated amino acids. This gene is located on chromosome 3p21.1, 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]

Synonyms: ACY-1; ACY1D; HEL-S-5

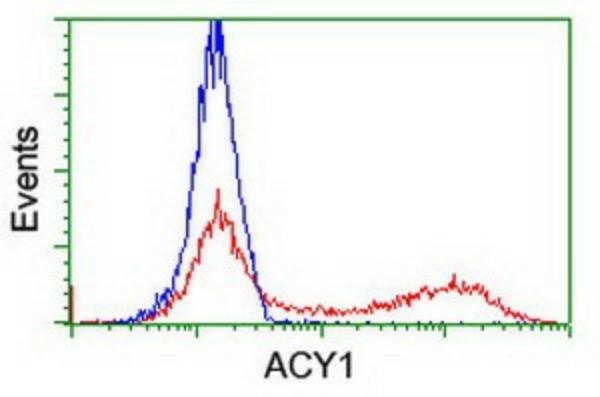
Protein Families: Protease

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY ACY1 ([RC201284], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ACY1. Positive lysates [LY424578] (100ug) and [LC424578] (20ug) can be purchased separately from OriGene.



HEK293T cells transfected with either [RC201284] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-ACY1 antibody ([TA503191]), and then analyzed by flow cytometry.