

Product Name: KD-Validated Aminoacylase 1 Mouse Monoclonal Antibody**Catalog #: KVA01224**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2,500; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 45.9kDa

Antigen Information

Gene Name	ACY1
Alternative Names	ACY1; Aminoacylase 1; N-Acyl-L-Amino-Acid Amidohydrolase; Aminoacylase-1; EC 3.5.1.14; ACY-1; Epididymis Secretory Protein Li 5; EC 3.5.1; HEL-S-5; Acylase; ACY1D
Gene ID	95.0
SwissProt ID	Q03154
Immunogen	Recombinant protein of human ACY1

Background

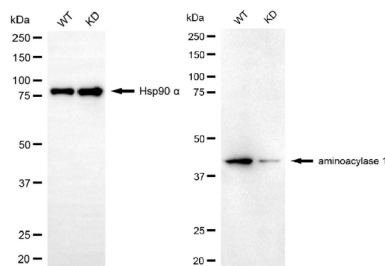
This gene encodes a cytosolic, homodimeric, zinc-binding enzyme that catalyzes the hydrolysis of acylated L-amino acids to L-amino acids and an acyl group, and has been postulated to function in the catabolism and salvage of acylated amino acids. This gene is located on chromosome 3p21.1, a region reduced 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 GenelD:100526760. A related pseudogene has been identified on chromosome 18. [provided by RefSeq, Nov 2010]

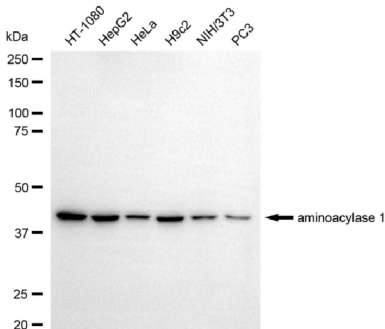
Research Area

Signal Transduction, Metabolism

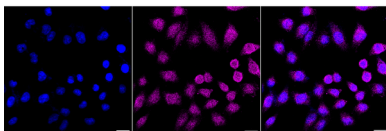
Image Data



Western blotting analysis using aminoacylase 1 antibody (KVA01224). Aminoacylase 1 expression in wild-type (WT) and aminoacylase 1 (ACY1) knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with aminoacylase 1 antibody (KVA01224, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Western blotting analysis using aminoacylase 1 antibody (KVA01224). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with aminoacylase 1 antibody (KVA01224, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with aminoacylase 1 antibody (KVA01224, 1:1,000). Nuclei were stained blue with DAPI; aminoacylase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar, 20 µm.