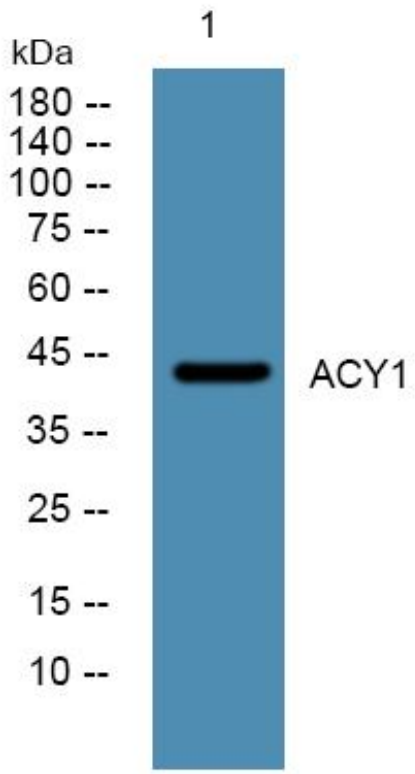
ACY1 Monoclonal Antibody

Catalog No	BYmab-07077
Isotype	IgG
Reactivity	Human;Mouse
Applications	WB
Gene Name	ACY1
Protein Name	Aminoacylase-1 (ACY-1) (EC 3.5.1.14) (N-acyl-L-amino-acid amidohydrolase)
Immunogen	Synthesized peptide derived from part region of human protein
Specificity	ACY1 Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	44kD
Cell Pathway	Cytoplasm.
Tissue Specificity	Expression is highest in kidney, strong in brain and weaker in placenta and spleen.
Function	catalytic activity:An N-acyl-L-amino acid + H(2)O = a carboxylate + an L-amino acid.,cofactor:Binds 2 zinc ions per subunit.,disease:Defects in ACY1 are the cause of aminoacylase-1 deficiency (ACY1D) [MIM:609924]. ACY1D results in a metabolic disorder manifesting with encephalopathy, unspecific psychomotor delay, psychomotor delay with atrophy of the vermis and syringomyelia, marked muscular hypotonia or normal clinical features. Epileptic seizures are a frequent feature. All affected individuals exhibit markedly increased urinary excretion of several N-acetylated amino acids.,function:Involved in the hydrolysis of N-acylated or N-acetylated amino acids (except L-aspartate).,similarity:Belongs to the peptidase M20A family.,subunit:Homodimer. Interacts with SPHK1.,tissue specificity:Expression is highest in kidney, strong in brain and weaker in placenta and spleen.,

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 als
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using ACY1 Monoclonal Antibody