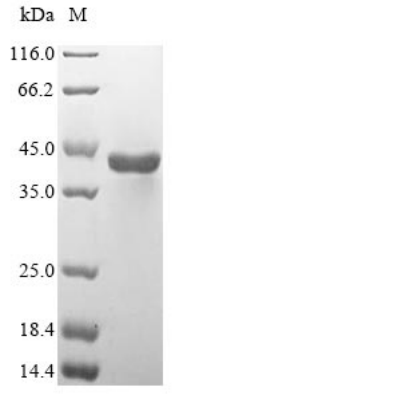
Recombinant Human Aspartoacylase (ASPA)

Product Code	CSB-MP002223HU
Relevance	Catalyzes the deacetylation of N-acetylaspartic acid (NAA) to produce acetate and L-aspartate. NAA occurs in high concentration in brain and its hydrolysis NAA plays a significant part in the maintenance of intact white matter. In other tissues it act as a scavenger of NAA from body fluids.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P45381
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MTSCHIAEEHIQKVAIFGGTHGNELTGVFLVKHWLENGAEIQRTGLEVKPFITN PRAVKKCTRYIDCDLNRIFDLENLGKKMSEDLPYEVRRAQEINHLFGPKDSEDS YDIIFDLHNTTSNMGCTLILEDSRNNFLIQMFHYIKTSLAPLPCYVYLIEHPSLKY ATTRSIAKYPVGIEVGPQPQGVLRADILDQMRKMIKHALDFIHHFNEGKEFPPC AIEVYKIIEKVDYPRDENGEIAAIIHPNLQDQDWKPLHPGDPMFLTLDGKTIPLG GDCTVYPVFVNEAAYYEKKEAFAKTTKLTLNAKSIRCCLH
Lead Time	3-7 business days
Research Area	Signal Transduction
Source	Mammalian cell
Gene Names	ASPA
Protein Names	Aminoacylase-2 ACY2, ASP
Expression Region	1-313aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	39.7 kDa
Protein Description	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

To make this Recombinant Human ASPA protein, the ASPA gene was isolated at first and cloned into an expression vector. CUSABIO has built a mature recombinant protein platform. This Recombinant Human ASPA protein was developed in the platform. It was expressed in Mammalian cell at the region of 1-313aa of the Human ASPA protein. N-terminal 10xHis tag and C-terminal Myc tag was fused with the expression vector for affinity and purification purposes. The purity is 85%+ determined by SDS-PAGE.

ASPA is an enzyme reported to be involved in the hydrolysis of N-acetyl-aspartate (NAA) into acetate and aspartate. A reduction in free acetate for lipid synthesis subsequent to loss of ASPA function is believed to contribute to disease etiology and could likely account for abnormalities in the lipid content of myelin. Early observations suggested an association of Canavan disease with oligodendrocytes due to loss of white matter as a result of the absence of functional ASPA. Thus, modification of aspartoacylase might be serve as a potential use in enzyme replacement therapy for the treatment of Canavan disease. Besides, extensive aspartoacylase expression in the rat central nervous system. Several findings provide strong support for a carboxypeptidase-type mechanism for the hydrolysis of the amide bond of the substrate, N-acetyl- l-aspartate.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.