



# Recombinant Mouse Tissue alpha-L-fucosidase (Fuca1)

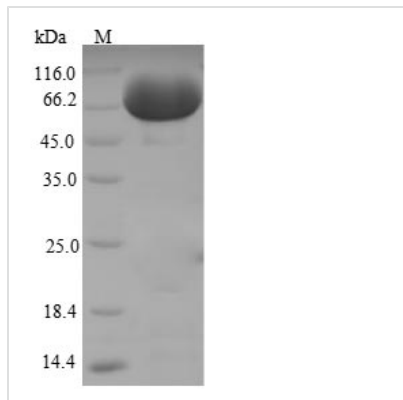
<b>Product Code</b>	CSB-EP858759MO
<b>Relevance</b>	Alpha-L-fucosidase is responsible for hydrolyzing the alpha-1,6-linked fucose joined to the reducing-end N-acetylglucosamine of the carbohydrate moieties of glycoproteins.
<b>Abbreviation</b>	Fuca1
<b>Storage</b>	The shelf life is related to many factors, 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.
<b>Uniprot No.</b>	Q99LJ1
<b>Alias</b>	Alpha-L-fucosidase I Alpha-L-fucoside fucohydrolase 1
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Mus musculus (Mouse)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	LAPRRFTPDWQSLDSRPLPSWFDEAKFGVFVHWGVFSVPAWGSEWFWWH WQGDRMPAYQRFMTENYPFGFSYADFAPQFTARFFHPDQWAELFQAAGAK YVVLTTKHHEGFTNWPSPVSWNWNNSKDVGPHRDLVGELGAAVRKRNIYGL YHSLLEWFHPLYLLDKKNGFKTQHFVRAKTMPELYDLVNSYKPDLIWSDGEW ECPDTYWNSTSFALWLYNDSPVKDEVIVNDRWGQNCCHGGYYNCQDKYK PQSLPDHKWEMCTSMRASWGYRKDMTSTIAKENEIEELVQTVSLGGNYL LNIGPTKDGLIVPIFQERLLAVGKWLQINGEAIYASKPWRVQSEKNKTVVWYTT KNATVYATFLYWPENGIVNLKSPKTTSATKITMLGLEGLSWTQDPLEGLVLI PQLPPTVLPVEFAWTLKLTQVN
<b>Lead Time</b>	3-7 business days
<b>Research Area</b>	Signal Transduction
<b>Source</b>	E.coli
<b>Gene Names</b>	Fuca1
<b>Protein Names</b>	Recommended name: Tissue alpha-L-fucosidase EC= 3.2.1.51 Alternative name(s): Alpha-L-fucosidase I Alpha-L-fucoside fucohydrolase 1 Short name= Alpha-L-fucosidase 1
<b>Expression Region</b>	18-452aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-SUMO-tagged
<b>Mol. Weight</b>	66.6kDa



## Protein Description

Full Length of Mature Protein

### Image



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

## Description

The recombinant Mouse Fuca1 was expressed with the amino acid range of 18-452. This Fuca1 protein is expected to have a theoretical molecular weight of 66.6 kDa. Expression of this Fuca1 protein is conducted in e.coli. The N-terminal 6xHis-SUMO tag was fused into the coding gene segment of Fuca1, making it easier to detect and purify the Fuca1 recombinant protein in the later stages of expression and purification.

Mouse tissue alpha-L-fucosidase (Fuca1) is an enzyme crucial for the hydrolysis of alpha-L-fucosidic linkages in various glycoconjugates. Encoded by the Fuca1 gene, this lysosomal enzyme plays a key role in the catabolism of fucose-containing glycoproteins and glycolipids. Fuca1 is expressed in various tissues, with higher levels found in the liver, kidney, and spleen. Its activity contributes to the degradation of complex carbohydrates, participating in cellular homeostasis. Deficiencies in Fuca1 are associated with fucosidosis, a lysosomal storage disorder characterized by the accumulation of fucose-containing compounds. The study of Fuca1 in mouse models provides insights into lysosomal function, glycoprotein metabolism, and the pathological mechanisms underlying fucosidosis, contributing to research in lysosomal storage disorders and potential therapeutic strategies for these conditions.

## 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.