Recombinant BCAT2 protein (His tag)

Catalog Number	546458
Synonyms	BCAT(m); Placental protein 18; PP18
Species	Human
Expression System	E. coli
Accession	O15382
Molecular Weight	Predictes a molecular mass of 42.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	28-392
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 28-392 aa (O15382) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This recombinant protein product features a stable and soluble fragment (residues 28-392) of human Branched-chain-amino-acid aminotransferase, mitochondrial (BCAT(m)), designed for structural and biochemical studies. This fragment retains key functional regions essential for investigating BCAT(m)'s role in branched-chain amino acid metabolism. Branched-chain-amino-acid aminotransferase, mitochondrial (BCAT(m)) catalyzes the initial step in the catabolic pathway of essential branched-chain amino acids—leucine, isoleucine, and valine—which is critical for energy production and metabolic regulation. Additionally, BCAT(m) may function as a transporter for branched-chain alpha-keto acids, further implicating it in cellular metabolism. The protein is localized to the mitochondrion, where it supports mitochondrial function and amino acid homeostasis. This recombinant fragment provides a valuable tool for exploring BCAT(m)'s enzymatic mechanisms and potential roles in metabolic diseases.