Recombinant MBTP2 protein (His tag)

Catalog Number	544102
Synonyms	Endopeptidase S2P; Sterol regulatory element-binding proteins intramembrane protease; SREBPs intramembrane protease
Species	Human
Expression System	E. coli
Accession	O43462
Molecular Weight	Predictes a molecular mass of 23.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	252-446
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 252-446 aa (O43462) 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	Recombinant Human Membrane-bound transcription factor site-2 protease (MBTPS2) fragment (residues 252-446) is a highly stable and soluble protein unit ideal for structural and biochemical studies. This fragment, derived from the Homo sapiens source, retains key features for investigating intramembrane proteolysis mechanisms, supporting research in lipid metabolism, ER stress response, and transcriptional regulation. The full-length MBTPS2 protein is a zinc metalloprotease that mediates intramembrane proteolysis of substrates such as ATF6, ATF6B, SREBF1/SREBP1, and SREBF2/SREBP2. It catalyzes the second step in the proteolytic activation of sterol regulatory element-binding proteins (SREBPs), releasing mature N-terminal fragments that translocate to the nucleus to activate gene transcription. MBTPS2 also processes cyclic AMP-dependent transcription factors ATF-6 and, under DNA damage or ER stress, cleaves CREB3L1 to inhibit cell-cycle progression in astrocytes and osteoblasts. Located in the membrane as a multi-pass protein, it is found in the Golgi apparatus and cytoplasm, playing critical roles in lipid homeostasis, bone formation, and cellular stress responses.