Recombinant HTRA2 protein (His tag)

Catalog Number	537221
Synonyms	High temperature requirement protein A2; HtrA2; Omi stress-regulated endoprotease; Serine protease 25; Serine proteinase OMI
Species	Human
Expression System	E. coli
Accession	O43464
Molecular Weight	Predictes a molecular mass of 36.09 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	140-458
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 140-458 aa (O43464) 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 HTRA2 (Serine protease HTRA2, mitochondrial) Fragment (aa 140-458): A high-purity, functional protein fragment encompassing the PDZ domain, ideal for investigating apoptosis regulation, caspase activation, and domain-specific interactions in cellular stress responses. HTRA2 (High temperature requirement protein A2) is a mitochondrial serine protease (EC 3.4.21.108) that plays a critical role in promoting apoptosis through both caspase-dependent and independent mechanisms. It localizes predominantly to the mitochondrial intermembrane space and is released into the cytosol upon apoptotic stimuli. HTRA2 cleaves inhibitor of apoptosis proteins like BIRC6, relieving their suppression of caspases (CASP3, CASP7, CASP9), and also targets substrates such as THAP5 for degradation. The full-length protein exists in proteolytically active (isoform 1) and inactive (isoform 2) forms, with isoform 1 also detected in the endoplasmic reticulum. This recombinant fragment (aa 140-458) includes the PDZ domain (aa 364-445), enabling focused study of domain-mediated protein interactions and regulatory functions in apoptosis pathways.