Recombinant ICAL protein (His tag)

Catalog Number	544473
Synonyms	Calpain inhibitor; Sperm BS-17 component
Species	Human
Expression System	E. coli
Accession	P20810
Molecular Weight	Predictes a molecular mass of 12.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	564-659
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 564-659 aa (P20810) 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 Calpastatin (Calpain Inhibitor) Fragment (564-659) is a high-purity, 96-amino acid protein designed for robust structural and biochemical studies. This fragment, derived from the sperm BS-17 component, retains key functional properties for specific inhibition of calpain, offering a stable and soluble tool for research applications. Calpastatin, encoded by the CAST gene, is a specific endogenous inhibitor of calpain, a calcium-dependent cysteine protease. It plays a critical role in regulating muscle protein degradation, with significant implications in postmortem meat tenderization and cellular proteolytic processes in living tissues. While the subcellular localization is not fully specified, its function underscores its importance in maintaining protein homeostasis and influencing tissue integrity.