Recombinant SPB9 protein (His tag)

Catalog Number	542379
Synonyms	Cytoplasmic antiproteinase 3; CAP-3; CAP3; Peptidase inhibitor 9; PI-9
Species	Human
Expression System	E. coli
Accession	P50453
Molecular Weight	Predictes a molecular mass of 44.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	1-376
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-376 aa (P50453) 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 Serpin B9 (Cytoplasmic antiproteinase 3), encompassing amino acids 1-376, is a high-purity fragment designed for robust structural and biochemical studies. This soluble, stable protein unit serves as a potent Granzyme B inhibitor, ideal for investigating apoptosis regulation and immune response mechanisms. Serpin B9, also known as Peptidase Inhibitor 9 (PI-9), functions as a key cytoplasmic inhibitor of Granzyme B, a serine protease critical for cytotoxic T-cell and natural killer cell-mediated apoptosis. By neutralizing Granzyme B activity within the cytoplasm, Serpin B9 plays a vital role in protecting cells from immune-induced cell death and modulating inflammatory responses. Its cytoplasmic localization underscores its importance in intracellular protease regulation, making it a significant target for research in immunology, cancer biology, and autoimmune disorders.