Recombinant PSB9 protein (His tag)

Catalog Number	544527
Synonyms	Low molecular mass protein 2; Macropain chain 7; Multicatalytic endopeptidase complex chain 7; Proteasome chain 7; Proteasome subunit beta-1i; Really interesting new gene 12 protein
Species	Human
Expression System	E. coli
Accession	P28065
Molecular Weight	Predictes a molecular mass of 22.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	21-219
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 21-219 aa (P28065) 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 Proteasome subunit beta type-9 (PSMB9) fragment (residues 21-219) is a high-purity protein designed for structural and biochemical studies. This stable, soluble fragment retains key functional regions, enabling researchers to investigate immunoproteasome activity and antigen processing mechanisms with reliability and precision. The proteasome is a multicatalytic proteinase complex that cleaves peptides after hydrophobic and basic residues, playing a critical role in ATP-dependent proteolysis. As part of the immunoproteasome, PSMB9 (also known as Proteasome subunit beta-1i) enhances the cleavage capacity for hydrophobic and basic residues, directly contributing to antigen processing and the generation of class I binding peptides for immune recognition. This subunit is localized in both the cytoplasm and nucleus, underscoring its involvement in essential cellular processes. The provided fragment represents a computationally optimized, stable unit ideal for elucidating the structural and functional properties of PSMB9 in immune regulation and proteasomal activity.