Recombinant PSA6 protein (His tag)

Catalog Number	542444
Synonyms	27 kDa prosomal protein; PROS-27; p27K; Macropain iota chain; Multicatalytic endopeptidase complex iota chain; Proteasome iota chain; Proteasome subunit alpha-1; alpha-1
Species	Human
Expression System	E. coli
Accession	P60900
Molecular Weight	Predictes a molecular mass of 29.05 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	1-246
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-246 aa (P60900) 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 Proteasome subunit alpha type-6 (PSMA6) fragment (1-246 aa) from Homo sapiens, representing a stable and soluble unit ideal for structural studies and biochemical assays related to proteasome function. Proteasome subunit alpha type-6 is a key component of the 20S core proteasome complex, which mediates the proteolytic degradation of most intracellular proteins. This complex, when associated with regulatory particles like 19S, PA200, or PA28, forms larger complexes such as the 26S proteasome, enabling ATP-dependent degradation of ubiquitinated proteins and ubiquitin-independent proteolysis. These processes are critical for maintaining protein homeostasis, removing misfolded or damaged proteins, and generating MHC class I-presented antigenic peptides. The protein localizes to both the cytoplasm and nucleus, with nuclear translocation facilitated by interaction with AKIRIN2 and IPO9, highlighting its dynamic role in cellular protein quality control and immune response pathways.