Recombinant PSMD1 protein (His tag)

Catalog Number	541090
Synonyms	26S proteasome regulatory subunit RPN2; 26S proteasome regulatory subunit S1; 26S proteasome subunit p112
Species	Human
Expression System	E. coli
Accession	Q99460
Molecular Weight	Predictes a molecular mass of 32.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	1-270
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 1-270 aa (Q99460) 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	Introducing the recombinant human 26S proteasome non-ATPase regulatory subunit 1 fragment (residues 1-270), a high-quality protein tool designed for structural and biochemical studies. This fragment represents a stable, soluble region of the PSMD1 gene product, ideal for investigating proteasome regulatory mechanisms and protein homeostasis pathways. The full-length 26S proteasome non-ATPase regulatory subunit 1 (PSMD1) is an essential component of the 26S proteasome complex, which mediates ATP-dependent degradation of ubiquitinated proteins. This complex maintains cellular protein homeostasis by eliminating misfolded, damaged, or unnecessary proteins, thereby playing critical roles in cell cycle regulation, apoptosis, and DNA damage repair processes. The proteasome's function is vital for numerous cellular operations, making it a key focus in understanding protein quality control and cellular regulation mechanisms.