Recombinant SMD2 protein (His tag)

Catalog Number	542465
Synonyms	Sm-D2; snRNP core protein D2
Species	Human
Expression System	E. coli
Accession	P62316
Molecular Weight	Predictes a molecular mass of 15.05 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	2-118
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 2-118 aa (P62316) 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 Small nuclear ribonucleoprotein Sm D2 (Sm-D2) Fragment (aa 2-118) - A high-purity protein fragment encompassing the complete Sm domain, ideal for studying spliceosome assembly and pre-mRNA splicing mechanisms in research applications. Small nuclear ribonucleoprotein Sm D2 (SNRPD2) serves as a core component of spliceosomal U1, U2, U4, and U5 small nuclear ribonucleoproteins (snRNPs), which are fundamental building blocks of the spliceosome. This protein plays critical roles in pre-mRNA splicing, participating in both the pre-catalytic spliceosome B complex and activated spliceosome C complexes. Additionally, as part of the minor spliceosome, it contributes to the splicing of U12-type introns in pre-mRNAs. The protein localizes to both the cytoplasm (cytosol) and nucleus, with SMN-mediated assembly into core snRNPs occurring in the cytosol before transport to the nucleus for inclusion in functional spliceosomes. The provided fragment (aa 2-118) contains the complete Sm domain, making it particularly valuable for investigating domain-specific functions in snRNP assembly and spliceosomal activity.