Recombinant SDE2 protein (His tag)

Catalog Number	545200
Synonyms	Replication stress response regulator SDE2
Species	Human
Expression System	E. coli
Accession	Q6IQ49
Molecular Weight	Predictes a molecular mass of 13.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	78-179
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 78-179 aa (Q6IQ49) 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 Splicing regulator SDE2 (78-179) is a high-quality protein fragment derived from the replication stress response regulator SDE2. This 102-amino acid fragment represents a stable and soluble unit ideal for structural studies, biochemical characterization, and functional investigations of SDE2's roles in DNA damage response and RNA processing. Splicing regulator SDE2 (Replication stress response regulator SDE2) is a multifunctional human protein with critical roles in maintaining genomic stability and regulating RNA processing. The full-length protein inhibits translesion DNA synthesis by preventing monoubiquitination of PCNA, which is essential for counteracting ultraviolet light-induced replication stress. SDE2 undergoes cleavage following PCNA binding, and its complete degradation is necessary for proper S-phase progression following DNA damage. Additionally, SDE2 plays important roles in pre-mRNA splicing by facilitating excision of short introns with weak 3'-splice sites and high GC content, and contributes to ribosome biogenesis by enabling SNORD3- and SNORD118-dependent cleavage of the 47S rRNA precursor. The protein localizes to both the nucleus and cytoplasm, reflecting its diverse functional repertoire in cellular processes.