Recombinant PAR16 protein (His tag)

Catalog Number	540746
Synonyms	ADP-ribosyltransferase diphtheria toxin-like 15; Poly [ADP-ribose] polymerase 16; PARP-16
Species	Human
Expression System	E. coli
Accession	Q8N5Y8
Molecular Weight	Predictes a molecular mass of 33.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	1-287
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 1-287 aa (Q8N5Y8) 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 PARP16 protein fragment (amino acids 1-287) encompassing the full PARP alpha-helical and catalytic domains. This high-purity construct enables targeted investigation of mono-ADP-ribosyltransferase activity in protein translation regulation and unfolded protein response mechanisms. PARP16 is an intracellular mono-ADP-ribosyltransferase that regulates critical cellular processes through post-translational modification of target proteins. It functions as a key inhibitor of protein translation by mono-ADP-ribosylating ribosomal subunits RPL14 and RPS6, disrupting polysome assembly and mRNA loading. Additionally, PARP16 activates the unfolded protein response by ADP-ribosylating and stimulating UPR effectors EIF2AK3 and ERN1. The enzyme localizes to the endoplasmic reticulum membrane as a single-pass type IV membrane protein, positioning it strategically for monitoring and responding to cellular stress conditions. This fragment retains the complete functional domains necessary for studying these specific enzymatic activities.