Recombinant PAR12 protein (His tag)

Catalog Number	545901
Synonyms	ADP-ribosyltransferase diphtheria toxin-like 12; ARTD12; Poly [ADP-ribose] polymerase 12; PARP-12; Zinc finger CCCH domain-containing protein 1
Species	Human
Expression System	E. coli
Accession	Q9H0J9
Molecular Weight	Predictes a molecular mass of 50.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	273-701
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 273-701 aa (Q9H0J9) 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 PARP12 (273-701) Fragment: A high-purity, functional protein fragment encompassing the WWE 1, WWE 2, and PARP catalytic domains from human mono-ADP-ribosyltransferase PARP12. This product is an essential tool for investigating ADP-ribosylation mechanisms, antiviral responses, and intracellular signaling pathways in a domain-specific context. PARP12 is a mono-ADP-ribosyltransferase (EC 2.4.2.-) in humans that catalyzes the transfer of ADP-ribose to target proteins, regulating diverse cellular processes. It functions as an antiviral factor by suppressing Zika virus replication in cooperation with PARP11 and directly ADP-ribosylating alphaviral proteins like nsP3 and nsP4 to inhibit infection. PARP12 also participates in intracellular transport by MARylating GOLGA1 to control basolateral trafficking and modulates mitochondrial function by inhibiting PINK1/Parkin-mediated mitophagy, thereby influencing inflammation and protein translation. The protein localizes to the nucleus, Golgi apparatus, trans-Golgi network, and stress granules, translocating to stress granules under cellular stress, highlighting its role in stress response and organelle dynamics. The provided fragment (residues 273-701) includes key functional domains critical for these activities, enabling focused studies on ADP-ribosylation and its biological impacts.