Recombinant ADPRS protein (His tag)

Catalog Number	539092
Synonyms	ADP-ribose glycohydrolase ARH3; ADP-ribosylhydrolase 3; O-acetyl-ADP-ribose deacetylase ARH3; Poly(ADP-ribose) glycohydrolase ARH3; [Protein ADP-ribosylarginine] hydrolase-like protein 2; [Protein ADP-ribosylserine] hydrolase
Species	Human
Expression System	E. coli
Accession	Q9NX46
Molecular Weight	Predictes a molecular mass of 40.60 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-363
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-363 aa (Q9NX46) 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 ADP-ribosylhydrolase ARH3 (ADPRS) fragment (residues 1-363) from Homo sapiens is a high-purity protein designed for structural and biochemical studies. This fragment encompasses the full-length protein and is optimized for stability and solubility, enabling research into its critical role in DNA damage response and ADP-ribose metabolism. ADP-ribosylhydrolase ARH3 (ADPRS) is a multifunctional enzyme that hydrolyzes ADP-ribosyl modifications, preferentially targeting serine and threonine residues on proteins, free poly(ADP-ribose), and O-acetyl-ADP-D-ribose. It plays a key role in DNA damage repair by removing mono-ADP-ribose from serine residues, a primary form of ADP-ribosylation in response to genotoxic stress. Additionally, ARH3 degrades free poly(ADP-ribose) in the nucleus and mitochondria, protecting cells from parthanatos, a form of poly(ADP-ribose)-dependent cell death. The enzyme is localized to the nucleus, cytoplasm, chromosomes, and mitochondrial matrix, and is recruited to DNA lesion sites following damage, underscoring its importance in maintaining genomic integrity and cellular survival.