Recombinant NNRD protein (His tag)

Catalog Number	534738
Synonyms	S; P; ATP-dependent NAD(P)HX dehydratase
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P32740
Gene ID	176277
Molecular Weight	Predictes a molecular mass of 35.54 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	1-307
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-307 aa (P32740) 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 ATP-dependent NAD(P)HX dehydratase (EC 4.2.1.93) fragment from Caenorhabditis elegans, encompassing the full YjeF C-terminal functional domain (residues 1-307). This high-purity protein is an essential tool for investigating ATP-dependent repair mechanisms of damaged NAD(P)H cofactors in metabolic studies. The full-length ATP-dependent NAD(P)HX dehydratase catalyzes the ATP-driven dehydration of the S-form of NAD(P)HX, converting it back to functional NAD(P)H while hydrolyzing ATP to ADP. This enzyme functions cooperatively with NAD(P)HX epimerase to repair both epimeric forms of NAD(P)HX, which are damaged through enzymatic or thermal hydration events. This repair system maintains NAD(P)H cofactor integrity, crucial for cellular redox homeostasis and metabolic pathway functionality across biological systems.