Recombinant NNRD protein (His tag)

Catalog Number	545380
Synonyms	S; P; ATP-dependent NAD(P)HX dehydratase; Carbohydrate kinase domain-containing protein; NAD(P)HX dehydratase
Species	Human
Expression System	E. coli
Accession	Q8IW45
Molecular Weight	Predictes a molecular mass of 33.69 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	47-347
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 47-347 aa (Q8IW45) 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	This product is a recombinant fragment of the human ATP-dependent (S)-NAD(P)H-hydrate dehydratase (NAD(P)HX dehydratase), encompassing amino acids 47-347. It includes the complete YjeF C-terminal functional domain, making it an ideal tool for investigating domain-specific mechanisms in NAD(P)H repair pathways. The full-length ATP-dependent NAD(P)HX dehydratase, encoded by the NAXD gene, is a mitochondrial enzyme essential for cellular metabolism maintenance. It catalyzes the ATP-dependent dehydration of the S-form of NAD(P)HX, a damaged byproduct of NAD(P)H resulting from heat or enzymatic hydration. Working in concert with NAD(P)HX epimerase, this enzyme enables the repair of both epimeric forms of NAD(P)HX, thereby preserving NAD(P)H cofactor integrity and supporting critical redox reactions in energy metabolism and detoxification processes.