Recombinant RT4I1 protein (His tag)

Catalog Number	543280
Synonyms	P; NOGO-interacting mitochondrial protein; Reticulon-4-interacting protein 1
Species	Human
Expression System	E. coli
Accession	Q8WWV3
Molecular Weight	Predictes a molecular mass of 40.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	41-396
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 41-396 aa (Q8WWV3) 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 NAD(P)H oxidoreductase RTN4IP1 (EC 1.6.5.-) fragment (residues 41-396) is a high-purity protein designed for studying mitochondrial ubiquinone biosynthesis and neurite outgrowth regulation. This 356-amino acid fragment fully encompasses the functional Enoyl reductase (ER) domain, making it an ideal tool for domain-specific functional assays and mechanistic investigations. RTN4IP1 is a mitochondrial NAD(P)H oxidoreductase that plays a critical role in the ubiquinone (coenzyme Q) biosynthetic pathway by supporting the O-methyltransferase activity of COQ3. Recent research demonstrates its ability to catalyze the oxidoreduction of 3-demethylubiquinone to 3-demethylubiquinol in vitro, though its precise physiological substrate requires further characterization. Additionally, RTN4IP1 is implicated in regulating retinal ganglion cell neurite outgrowth during inner retina and optic nerve development and may function as an inhibitor of regeneration following spinal cord injury. The protein primarily localizes to the mitochondrial matrix, with additional presence at mitochondrial-ER contact sites, highlighting its importance in mitochondrial function and inter-organelle communication.