Recombinant RNF41 protein (His tag)

Catalog Number	541257
Synonyms	RING finger protein 41; RING-type E3 ubiquitin transferase NRDP1
Species	Human
Expression System	E. coli
Accession	Q9H4P4
Molecular Weight	Predictes a molecular mass of 37.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	1-317
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-317 aa (Q9H4P4) 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 E3 ubiquitin-protein ligase NRDP1 (RNF41) fragment (residues 1-317) is a high-purity, stable protein designed for structural and biochemical studies. This fragment encompasses the full-length protein's functional domains, offering researchers a soluble and active unit to investigate ubiquitination mechanisms and protein degradation pathways. E3 ubiquitin-protein ligase NRDP1 (RNF41) is a RING-type E3 ubiquitin transferase that regulates the degradation of target proteins through ubiquitination. It plays critical roles in immune response modulation by polyubiquitinating MYD88 to negatively regulate pro-inflammatory cytokine production and promoting TRIF-dependent type I interferon activation. Additionally, RNF41 is involved in hematopoietic progenitor cell differentiation by maintaining basal levels of cytokine receptors like erythropoietin and interleukin-3. It contributes to apoptosis regulation by degrading the inhibitor of apoptosis BIRC6 and influences mitochondrial quality control by accelerating PRKN degradation, thereby regulating autophagosome-lysosome fusion during mitophagy. These functions highlight its significance in cellular homeostasis, immune signaling, and disease research.