Recombinant RC3H2 protein (His tag)

Catalog Number	548284
Synonyms	Membrane-associated nucleic acid-binding protein; RING finger and CCCH-type zinc finger domain-containing protein 2; RING finger protein 164; RING-type E3 ubiquitin transferase Roquin-2
Species	Human
Expression System	E. coli
Accession	Q9HBD1
Molecular Weight	Predictes a molecular mass of 51.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	1-447
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 1-447 aa (Q9HBD1) 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	Introducing the recombinant Roquin-2 (RC3H2) protein fragment (amino acids 1-447), a high-quality reagent designed for investigating post-transcriptional mRNA regulation and E3 ubiquitin ligase activity. This fragment, derived from human Roquin-2, offers a stable and soluble unit ideal for structural studies, biochemical assays, and functional analyses of this critical regulatory protein. Roquin-2 is a multifunctional protein in Homo sapiens that acts as a post-transcriptional repressor of mRNAs containing constitutive decay elements (CDEs), such as those in ICOS, TNF, and other immune-related genes. It binds CDE motifs and promotes mRNA deadenylation and degradation independently of miRNAs, playing a key role in preventing spontaneous T follicular helper cell differentiation and autoimmunity. Additionally, Roquin-2 functions as a RING-type E3 ubiquitin transferase, pairing with E2 enzymes like UBE2N:UBE2V1 to catalyze polyubiquitination of substrates such as MAP3K5, and regulates microRNA homeostasis by influencing DICER-mediated processing. The protein localizes to cytoplasmic P-bodies and stress granules under certain conditions, underscoring its involvement in RNA metabolism and stress responses. This recombinant fragment enables focused studies on these essential regulatory mechanisms.