# Recombinant RN135 protein (His tag)

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| **Catalog Number** | 545366 |
| **Synonyms** | RIG-I E3 ubiquitin ligase; REUL; RING finger protein 135; RING finger protein leading to RIG-I activation; Riplet; RING-type E3 ubiquitin transferase RNF135 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q8IUD6 |
| **Molecular Weight** | Predictes a molecular mass of 22.49 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band. |

## Product Information

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| **Sequence Region** | 250-432 |
| **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 250-432 aa (Q8IUD6) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human E3 ubiquitin-protein ligase RNF135 (RNF135) Fragment (aa 250-432) is a high-quality, stable protein fragment designed for structural and biochemical studies. This 183-amino acid fragment, derived from the RIG-I E3 ubiquitin ligase, supports research into antiviral innate immune responses by enabling analysis of ubiquitin ligase mechanisms in a soluble, well-characterized format. E3 ubiquitin-protein ligase RNF135 (RNF135) is a key regulator in the antiviral innate immune response, functioning as a RIG-I coreceptor in the cytoplasm. It activates the RIG-I signaling pathway through two synergistic mechanisms: E2-dependent 'Lys-63'-linked polyubiquitination of RIG-I oligomers on viral RNAs, and a ubiquitin-independent bridging of RIG-I filaments on longer RNAs, allowing RNA length-dependent regulation. RNF135 also constitutively synthesizes unanchored 'Lys-63'-linked polyubiquitin chains with UBE2N to further potentiate RIG-I activation. Located primarily in the cytoplasm and stress granules, this protein is essential for sensing viral RNAs and initiating immune defenses. The provided fragment (aa 250-432) represents a stable, soluble region optimized for investigating RNF135's role in ubiquitination and immune signaling pathways. |