

RNF135 Protein, Human

Cat. No.:	HY-P701552
Synonyms:	RNF135; E3 ubiquitin-protein ligase RNF135; 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
Source:	E. coli
Accession:	Q8IUD6 (A2-V432)
Gene ID:	84282
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	RNF135, as an E2-dependent E3 ubiquitin-protein ligase, plays a pivotal role in the innate immune response by serving as a coreceptor for RIGI in the detection of viral RNAs within the cell cytoplasm. Collaborating with the UBE2D3, UBE2N, and UB2V1 E2 ligases, RNF135 orchestrates the 'Lys-63'-linked polyubiquitination of RIGI, which is crucial for the activation of the RIG-I signaling pathway during viral infection. Additionally, through a ubiquitin-independent mechanism, RNF135 facilitates the bridging of RIGI filaments formed on longer viral RNAs, further enhancing RIG-I pathway activation. This dual mechanism, involving both ubiquitin-dependent and -independent processes, suggests a sophisticated regulation of the RIG-I signaling pathway, potentially influenced by the length of the viral RNA. Furthermore, in association with the E2 ligase UBE2N, RNF135 constitutively generates unanchored 'Lys-63'-linked polyubiquitin chains, providing an alternative means to activate the RIG-I signaling pathway and emphasizing the complexity of RNF135's involvement in antiviral immune responses.
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Caution: Product has not been fully validated for medical applications. For research use only.

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