

## RNF5 Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702425
Synonyms:	E3 ubiquitin-protein ligase RNF5; RING finger protein 5; Ram1 homolog; HsRma1
Species:	Human
Source:	E. coli Cell-free
Accession:	Q99942 (A2-I180)
Gene ID:	6048
Molecular Weight:	25.8 kDa

### PROPERTIES

AA Sequence	<pre> A A A E E E D G G P   E G P N R E R G G A   G A T F E C N I C L   E T A R E A V V S V C G H L Y C W P C L   H Q W L E T R P E R   Q E C P V C K A G I   S R E K V V P L Y G R G S Q K P Q D P R   L K T P P R P Q G Q   R P A P E S R G G F   Q P F G D T G G F H F S F G V G A F P F   G F F T T V F N A H   E P F R R G T G V D   L G Q G H P A S S W Q D S L F L F L A I   F F F F W L L S I           </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>RNF5 Protein, a membrane-bound E3 ubiquitin-protein ligase, plays a pivotal role in the ubiquitination of target proteins, exhibiting diverse cellular functions. Teaming up with E2 ubiquitin-conjugating enzymes such as UBE2D1/UBCH5A and UBE2D2/UBC4, RNF5 orchestrates ubiquitination processes with a broad substrate range. Notably, it mediates the ubiquitination of PXN/paxillin, influencing cell motility and the cellular localization of PXN/paxillin. Additionally, RNF5 catalyzes the ubiquitination of Salmonella type III secreted protein sopA and JKAMP, modulating their functions. The 'Lys-63'-linked polyubiquitination of JKAMP regulates its association with the proteasome and ERAD components, while the 'Lys-</p>
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48'-linked polyubiquitination of STING1 at 'Lys-150' leads to proteasomal degradation, impacting antiviral responses. Furthermore, RNF5 catalyzes the ubiquitination and subsequent degradation of ATG4B, providing a mechanism to inhibit autophagy. These diverse activities highlight the versatile regulatory role of RNF5 in cellular processes.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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