RNF14 Protein, Human (His)

Cat. No.:	HY-P701559
Synonyms:	RNF14; E3 ubiquitin-protein ligase RNF14; Androgen receptor-associated protein 54; HFB30; RING finger protein 14; Triad2 protein
Species:	Human
Source:	E. coli
Accession:	Q9UBS8 (S2-D474)
Gene ID:	9604
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.
Reconsititution	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	RNF14 Protein serves as a pivotal E3 ubiquitin-protein ligase in the RNF14-RNF25 translation quality control pathway, specifically activated when ribosomes stall during translation. In response to ribosome collision sensed by GCN1, RNF14 is recruited to stalled ribosomes, catalyzing the ubiquitination and subsequent degradation of translation factors, with a primary target being EEF1A1/eEF1A. This orchestrated process extends to the ubiquitination and degradation of other translation factors, including ETF1/eRF1 and several ribosomal proteins, such as RPL0, RPL1, RPL12, RPS13, and RPS17. Independently of its role in translational control, RNF14 assumes a regulatory role in Wnt signaling by interacting with TCF transcription factors (TCF7/TCF1, TCF7L1/TCF3, and TCF7L2/TCF4). Furthermore, it may act as a coactivator for androgen- and, to a lesser extent, progesterone-dependent transcription, underscoring its multifunctional role in cellular processes.

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