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RNF14 Antibody

Rabbit mAb
Catalog # AP92914

Product Information

Application	WB
Primary Accession	Q9UBS8
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	ARA54; HFB30; Rnf14; TRIAD2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	53837

Additional Information

Dilution	WB 1:500~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human RNF14
Description	Might act as an E3 ubiquitin-protein ligase which accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes and then transfers it to substrates, which could be nuclear proteins. Could play a role as a coactivator for androgen- and, to a lesser extent, progesterone-dependent transcription.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

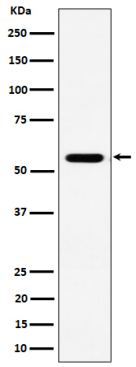
Name	RNF14 {ECO:0000303|PubMed:36638793, ECO:0000312|HGNC:HGNC:10058}
Function	E3 ubiquitin-protein ligase that plays a key role in the RNF14-RNF25 translation quality control pathway, a pathway that takes place when a ribosome has stalled during translation, and which promotes ubiquitination and degradation of translation factors on stalled ribosomes (PubMed:36638793, PubMed:37651229, PubMed:37951215, PubMed:37951216). Recruited to stalled ribosomes by the ribosome collision sensor GCN1 and mediates 'Lys-6'-linked ubiquitination of target proteins, leading to their degradation (PubMed:36638793, PubMed:37651229, PubMed:37951215, PubMed:37951216). Mediates ubiquitination of EEF1A1/eEF1A and ETF1/eRF1 translation factors on stalled ribosomes, leading to their degradation (PubMed:36638793, PubMed:37651229). Also catalyzes ubiquitination of ribosomal proteins RPL0, RPL1, RPL12, RPS13 and RPS17 (PubMed:36638793). Specifically required to resolve RNA-protein cross-links caused by reactive aldehydes, which trigger translation stress by stalling

ribosomes: acts by catalying 'Lys-6'-linked ubiquitination of RNA-protein cross-links, leading to their removal by the ATP-dependent unfoldase VCP and subsequent degradation by the proteasome (PubMed:37951215, PubMed:37951216). Independently of its function in the response to stalled ribosomes, acts as a regulator of transcription in Wnt signaling via its interaction with TCF transcription factors (TCF7/TCF1, TCF7L1/TCF3 and TCF7L2/TCF4) (PubMed:23449499). May also play a role as a coactivator for androgen- and, to a lesser extent, progesterone-dependent transcription (PubMed:19345326).

Cellular Location Cytoplasm. Nucleus

Tissue Location Widely expressed..

Images



Western blot analysis of RNF14 expression in Jurkat cell lysate.