10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RNF14 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17648b

Product Information

Application	WB, E
Primary Accession	Q9UBS8
Other Accession	NP_899646.1, NP_004281.1
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB30406
Calculated MW	53837
Antigen Region	336-364

Additional Information

Gene ID	9604
Other Names	E3 ubiquitin-protein ligase RNF14, 632-, Androgen receptor-associated protein 54, HFB30, RING finger protein 14, Triad2 protein, RNF14, ARA54
Target/Specificity	This RNF14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 336-364 amino acids from the C-terminal region of human RNF14.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RNF14 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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..

Background

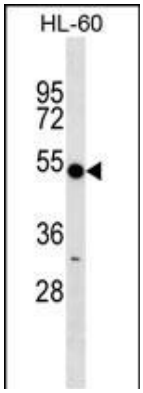
The protein encoded by this gene contains a RING zinc finger, a motif known to be involved in protein-protein interactions. This protein interacts with androgen receptor (AR) and may function as a coactivator that induces AR target gene expression in prostate. A dominant negative mutant of this gene has been demonstrated to inhibit the AR-mediated growth of prostate cancer. This protein also interacts with class III ubiquitin-conjugating enzymes (E2s) and may act as a ubiquitin-ligase (E3) in the ubiquitination of certain nuclear proteins. Five alternatively spliced transcript variants encoding two distinct isoforms have been reported.

References

Xu, K., et al. Cancer Cell 15(4):270-282(2009)
Lan, K.C., et al. Fertil. Steril. 89 (5 SUPPL), 1397-1405 (2008) :
Kikuchi, H., et al. Carcinogenesis 28(8):1752-1758(2007)
Yang, Z., et al. Endocrinology 148(3):1340-1349(2007)
Yang, Z., et al. Mol. Endocrinol. 21(2):343-358(2007)

Images

RNF14 Antibody (C-term) (Cat. #AP17648b) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the RNF14 antibody detected the RNF14 protein (arrow).



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