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TRIM33 Antibody

Catalog # ASC11667

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9UPN9
Other Accession	NP_056990, 74027249
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	122533
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TRIM33 antibody can be used for detection of TRIM33 by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	51592
Other Names	E3 ubiquitin-protein ligase TRIM33, 6.3.2.-, Ectodermin homolog, RET-fused gene 7 protein, Protein Rfg7, Transcription intermediary factor 1-gamma, TIF1-gamma, Tripartite motif-containing protein 33, TRIM33, KIAA1113, RFG7, TIF1G
Target/Specificity	TRIM33; TRIM33 antibody is human, mouse and rat reactive. At least two isoforms of TRIM33 are known to exist.
Reconstitution & Storage	TRIM33 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	TRIM33 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TRIM33
Synonyms	KIAA1113, RFG7, TIF1G
Function	Acts as an E3 ubiquitin-protein ligase. Promotes SMAD4 ubiquitination, nuclear exclusion and degradation via the ubiquitin proteasome pathway. According to PubMed:16751102, does not promote a decrease in the level of endogenous SMAD4. May act as a transcriptional repressor. Inhibits the transcriptional response to TGF-beta/BMP signaling cascade. Plays a role in the control of cell proliferation. Its association with SMAD2 and SMAD3 stimulates erythroid differentiation of hematopoietic stem/progenitor (By

	similarity). Monoubiquitinates SMAD4 and acts as an inhibitor of SMAD4-dependent TGF-beta/BMP signaling cascade (Monoubiquitination of SMAD4 hampers its ability to form a stable complex with activated SMAD2/3 resulting in inhibition of TGF-beta/BMP signaling cascade).
Cellular Location	Nucleus. Note=In discrete nuclear dots resembling nuclear bodies (By similarity). Localizes to sites of DNA damage (PubMed:25593309). {ECO:0000250|UniProtKB:Q99PP7, ECO:0000269|PubMed:25593309}
Tissue Location	Expressed in stem cells at the bottom of the crypts of the colon (at protein level). Expressed in colon adenomas and adenocarcinomas (at protein level). Expressed in brain, lung, liver, spleen, thymus, prostate, kidney, testis, heart, placenta, pancreas, small intestine, ovary, colon, skeletal muscle and hematopoietic progenitors

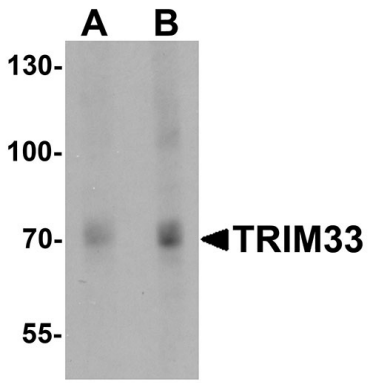
Background

TRIM33 Antibody: TRIM24 (TIF1alpha), TRIM28 (TIF1beta), and TRIM33 (TIF1gamma) are three related cofactors belonging to the tripartite motif superfamily that interact with distinct transcription factors (1-2). The structure of TRIM33 is similar to TRIM24 and TRIM28, exhibiting multiple domains (RING finger, coiled coil, B boxes, PHD/TTC, and bromodomain) (3). TRIM33 functions in cell differentiation and development, playing a role in differentiation of hematopoietic cells (3). It interacts with the Smad2/3 transcription factor in hematopoietic, mesenchymal, and epithelial cell types to mediate different transcriptional effects in response to TGF-beta (4). It acts as an E3 ubiquitin-protein ligase and promotes SMAD4 ubiquitination (5).

References

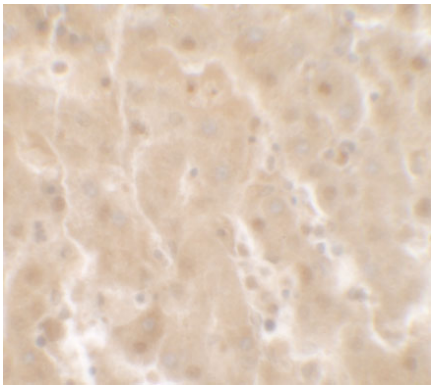
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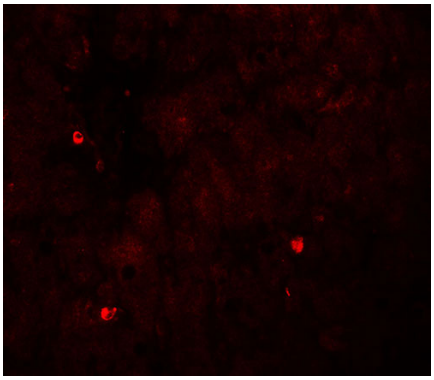
Images



Western blot analysis of TRIM33 in human liver tissue lysate with TRIM33 antibody at (A) 1 and (B) 2 µg/mL.

Immunohistochemistry of TRIM33 in human liver tissue with TRIM33 antibody at 2.5 µg/ml.





Immunofluorescence of TRIM33 in human liver tissue with TRIM33 antibody at 20 µg/ml.

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