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Goat Anti-TRC8 Antibody

Peptide-affinity purified goat antibody
Catalog # AF2108a

Specification

Goat Anti-TRC8 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q8WU17
Other Accession	NP_009149, 11236
Reactivity	**Human**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**75994**

Goat Anti-TRC8 Antibody - Additional Information

Gene ID 11236

Other Names
E3 ubiquitin-protein ligase RNF139, 6.3.2.-, RING finger protein 139, Translocation in renal carcinoma on chromosome 8 protein, RNF139 (HGNC:17023)

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-TRC8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-TRC8 Antibody - Protein Information

Name RNF139 (HGNC:17023)

Function
E3-ubiquitin ligase; acts as a negative regulator of cell proliferation through mechanisms involving G2/M arrest and cell death (PubMed:10500182, PubMed:<a href="http://www.uniprot.org/citations/12032852"

target="_blank">12032852, PubMed:17016439). Required for MHC class I ubiquitination in cells expressing the cytomegalovirus protein US2 before dislocation from the endoplasmic reticulum (ER) (PubMed:19720873). Affects SREBP processing by hindering the SREBP-SCAP complex translocation from the ER to the Golgi, thereby reducing SREBF2 target gene expression (PubMed:19706601, PubMed:20068067). Involved in the sterol-accelerated degradation of HMGCR (PubMed:22143767, PubMed:23223569). This is achieved through binding of RNF139 to INSIG1 and/or INSIG2 at the ER membrane (PubMed:22143767). In addition, interaction of RNF139 with AUP1 facilitates interaction of RNF139 with ubiquitin-conjugating enzyme UBE2G2 and ubiquitin ligase AMFR, leading to ubiquitination of HMGCR (PubMed:23223569). The ubiquitinated HMGCR is then released from the ER into the cytosol for subsequent destruction (PubMed:22143767, PubMed:23223569). Required for INSIG1 ubiquitination (PubMed:20068067). May be required for EIF3 complex ubiquitination (PubMed:20068067).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location
Highly expressed in testis, placenta and adrenal gland. Moderate expression in heart, brain, liver, skeletal muscle and pancreas, and low expression in lung and kidney

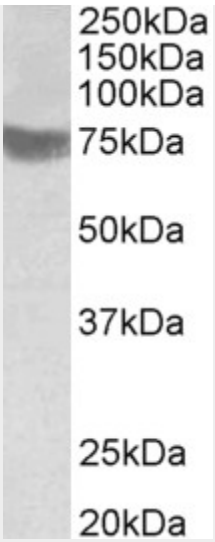
Goat Anti-TRC8 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

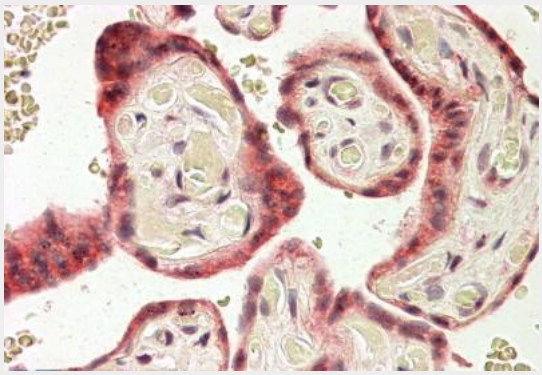
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-TRC8 Antibody - Images

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AF2108a (1 µg/ml) staining of Human Skeletal Muscle lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF2108a (3.8 µg/ml) staining of paraffin embedded Human Placenta. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-TRC8 Antibody - Background

The protein encoded by this gene is a multi-membrane spanning protein containing a RING-H2 finger. This protein is located in the endoplasmic reticulum, and has been shown to possess ubiquitin ligase activity. This gene was found to be interrupted by a t(3:8) translocation in a family with hereditary renal and non-medulary thyroid cancer. Studies of the Drosophila counterpart suggested that this protein may interact with tumor suppressor protein VHL, as well as with COPS5/JAB1, a protein responsible for the degradation of tumor suppressor CDKN1B/P27KIP.

Goat Anti-TRC8 Antibody - References

The TRC8 ubiquitin ligase is sterol regulated and interacts with lipid and protein biosynthetic pathways. Lee JP, et al. Mol Cancer Res, 2010 Jan. PMID 20068067.
The TRC8 E3 ligase ubiquitinates MHC class I molecules before dislocation from the ER. Stagg HR, et al. J Cell Biol, 2009 Sep 7. PMID 19720873.
The sterol-sensing endoplasmic reticulum (ER) membrane protein TRC8 hampers ER to Golgi transport of sterol regulatory element-binding protein-2 (SREBP-2)/SREBP cleavage-activated protein and reduces SREBP-2 cleavage. Irisawa M, et al. J Biol Chem, 2009 Oct 16. PMID 19706601.
A constitutional balanced t(3;8)(p14;q24.1) translocation results in disruption of the TRC8 gene and predisposition to clear cell renal cell carcinoma. Poland KS, et al. Genes Chromosomes Cancer, 2007 Sep. PMID 17539022.

Global, in vivo, and site-specific phosphorylation dynamics in signaling networks. Olsen JV, et al. Cell, 2006 Nov 3. PMID 17081983.