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RAI17 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6236a

Product Information

Application	IHC-P, WB, E
Primary Accession	Q9ULJ6
Other Accession	Q6P1E1
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	115483
Antigen Region	1038-1067

Additional Information

Gene ID	57178
Other Names	Zinc finger MIZ domain-containing protein 1, PIAS-like protein Zimp10, Retinoic acid-induced protein 17, ZMIZ1, KIAA1224, RAI17, ZIMP10
Target/Specificity	This RAI17 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1038-1067 amino acids from the C-terminal region of human RAI17.
Dilution	IHC-P~~1:100~500 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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	RAI17 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

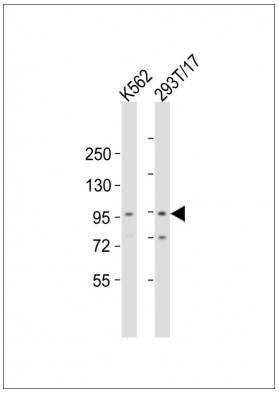
Name	ZMIZ1 (HGNC:16493)
Synonyms	KIAA1224, RAI17, ZIMP10
Function	Acts as a transcriptional coactivator. Increases ligand- dependent

	transcriptional activity of AR and promotes AR sumoylation. The stimulation of AR activity is dependent upon sumoylation (PubMed:14609956, PubMed:26522984). Also functions as a transcriptional coactivator in the TGF-beta signaling pathway by increasing the activity of the SMAD3/SMAD4 transcriptional complex (PubMed:16777850). Involved in transcriptional activation of a subset of NOTCH1 target genes including MYC. Involved in thymocyte and T cell development (By similarity). Involved in the regulation of postmitotic positioning of pyramidal neurons in the developing cerebral cortex (PubMed:30639322).
Cellular Location	Nucleus, nucleoplasm. Cytoplasm. Nucleus Note=Enriched at replication foci throughout S phase
Tissue Location	Expressed most abundantly in ovary and, at lower levels, in prostate, spleen and testis. Weak expression, if any, in thymus, small intestine, colon and peripheral blood leukocytes

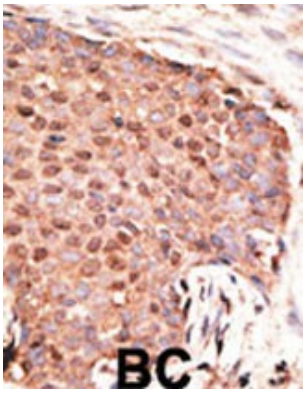
Background

Retinoic acid plays a critical role in development, cellular growth, and differentiation and induces the expression of a variety of genes. RAI17 expression is induced by retinoic acid and is predominantly expressed in heart, brain and ovaries. Within brain, highest expression is in amygdala. The deduced 1,067-amino acid protein contains an MSX-interacting zinc finger (MIZ) domain, a nuclear localization signal sequence, and 2 proline-rich regions. A strong intrinsic transactivation domain is identified in the C-terminal proline-rich region. RAI17 expression is detected in various cancer cell lines. RAI17 colocalizes with endogenous androgen receptor (AR) in the nuclei of prostate epithelial cells from human tissue samples. In human prostate cancer cells, RAI17 increases the transcriptional activity of AR. Studies using sumoylation-deficient AR mutants suggest that the increase of AR activity by RAI17 is dependent upon receptor sumoylation.

Images



All lanes : Anti-Rai17 Antibody (P604) at 1:2000 dilution Lane 1: K562 whole cell lysates Lane 2: 293T/17 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 115 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Citations

- Identification of Two Additional Susceptibility Loci for Inflammatory Bowel Disease in a Chinese Population.
- The PIAS-like Coactivator Zmiz1 Is a Direct and Selective Cofactor of Notch1 in T Cell Development and Leukemia.
- Convergence of the ZMIZ1 and NOTCH1 pathways at C-MYC in acute T lymphoblastic leukemias.