

TRIM28 / KAP1 Antibody (C-Terminus) Goat Polyclonal Antibody

Catalog # ALS13072

Specification

TRIM28 / KAP1 Antibody (C-Terminus) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC <u>Q13263</u> Human, Monkey Goat Polyclonal 89kDa KDa

TRIM28 / KAP1 Antibody (C-Terminus) - Additional Information

Gene ID 10155

Other Names Transcription intermediary factor 1-beta, TIF1-beta, E3 SUMO-protein ligase TRIM28, 6.3.2.-, KRAB-associated protein 1, KAP-1, KRAB-interacting protein 1, KRIP-1, Nuclear corepressor KAP-1, RING finger protein 96, Tripartite motif-containing protein 28, TRIM28, KAP1, RNF96, TIF1B

Target/Specificity Human TRIM28.

Reconstitution & Storage Store at -20°C. Minimize freezing and thawing.

Precautions TRIM28 / KAP1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

TRIM28 / KAP1 Antibody (C-Terminus) - Protein Information

Name TRIM28 (HGNC:16384)

Synonyms KAP1, RNF96, TIF1B

Function

Nuclear corepressor for KRAB domain-containing zinc finger proteins (KRAB-ZFPs). Mediates gene silencing by recruiting CHD3, a subunit of the nucleosome remodeling and deacetylation (NuRD) complex, and SETDB1 (which specifically methylates histone H3 at 'Lys-9' (H3K9me)) to the promoter regions of KRAB target genes. Enhances transcriptional repression by coordinating the increase in H3K9me, the decrease in histone H3 'Lys-9 and 'Lys-14' acetylation (H3K9ac and H3K14ac, respectively) and the disposition of HP1 proteins to silence gene expression. Recruitment of SETDB1 induces heterochromatinization. May play a role as a coactivator for CEBPB and NR3C1 in the transcriptional activation of ORM1. Also a corepressor for ERBB4. Inhibits E2F1 activity by stimulating E2F1-HDAC1 complex formation and inhibiting E2F1 acetylation. May



serve as a partial backup to prevent E2F1-mediated apoptosis in the absence of RB1. Important regulator of CDKN1A/p21(CIP1). Has E3 SUMO-protein ligase activity toward itself via its PHD-type zinc finger. Also specifically sumoylates IRF7, thereby inhibiting its transactivation activity. Ubiquitinates p53/TP53 leading to its proteasomal degradation; the function is enhanced by MAGEC2 and MAGEA2, and possibly MAGEA3 and MAGEA6. Mediates the nuclear localization of KOX1, ZNF268 and ZNF300 transcription factors. In association with isoform 2 of ZFP90, is required for the transcriptional repressor activity of FOXP3 and the suppressive function of regulatory T-cells (Treg) (PubMed:23543754). Probably forms a corepressor complex required for activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) or other tumor-related genes in colorectal cancer (CRC) cells (PubMed:24623306). Required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306"

target="_blank">24623306). In ESCs, in collaboration with SETDB1, is also required for H3K9me3 and silencing of endogenous and introduced retroviruses in a DNA-methylation independent-pathway (By similarity). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:24623306). The SETDB1-TRIM28-ZNF274 complex may play a role in recruiting ATRX to the 3'-exons of zinc- finger coding genes with atypical chromatin signatures to establish or maintain/protect H3K9me3 at these transcriptionally active regions (PubMed:27029610).

Cellular Location

Nucleus Note=Associated with centromeric heterochromatin during cell differentiation through CBX1 (By similarity). Localizes to sites of DNA damage (PubMed:25593309). {ECO:0000250|UniProtKB:Q62318, ECO:0000269|PubMed:25593309}

Tissue Location

Expressed in all tissues tested including spleen, thymus, prostate, testis, ovary, small intestine, colon and peripheral blood leukocytes.

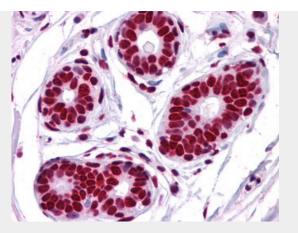
TRIM28 / KAP1 Antibody (C-Terminus) - Protocols

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

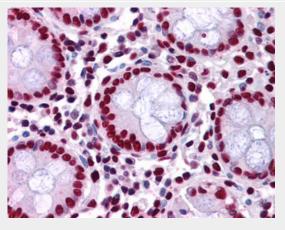
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

TRIM28 / KAP1 Antibody (C-Terminus) - Images





Anti-TRIM28 antibody IHC of human breast.



Anti-TRIM28 antibody IHC of human colon.

TRIM28 / KAP1 Antibody (C-Terminus) - Background

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TRIM28 / KAP1 Antibody (C-Terminus) - References

Friedman J.R., et al.Genes Dev. 10:2067-2078(1996). Moosmann P.R., et al.Nucleic Acids Res. 24:4859-4867(1996). Emison E.S., et al.Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases. Bienvenut W.V., et al.Submitted (MAY-2006) to UniProtKB. Bienvenut W.V., et al.Submitted (JAN-2010) to UniProtKB.

