

TRIM28 Antibody (N-term) Blocking peptide

Synthetic peptide Catalog # BP11866a

Specification

TRIM28 Antibody (N-term) Blocking peptide - Product Information

Primary Accession

013263

TRIM28 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 10155

Other Names

Transcription intermediary factor 1-beta, TIF1-beta, E3 SUMO-protein ligase TRIM28, 632-, 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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TRIM28 Antibody (N-term) Blocking peptide - Protein Information

Name TRIM28 (<u>HGNC:16384</u>)

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:<a href="http://www.uniprot.org/citations/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 Antibody (N-term) Blocking peptide - Protocols

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

• Blocking Peptides

TRIM28 Antibody (N-term) Blocking peptide - Images

TRIM28 Antibody (N-term) Blocking peptide - Background

The protein encoded by this gene mediates transcriptionalcontrol by interaction with the Kruppel-associated box repressiondomain found in many transcription factors. The protein localizesto the nucleus and is thought to associate with specific chromatinregions. The protein is a member of the tripartite motif family. This tripartite motif includes three zinc-binding domains, a RING, a B-box type 1 and a B-box type 2, and a coiled-coil region.

TRIM28 Antibody (N-term) Blocking peptide - References

Lai, I.L., et al. J. Biol. Chem. 285(10):7187-7196(2010)Yokoe, T., et al. Ann. Surg. Oncol. 17(3):821-828(2010)Noon, A.T., et al. Nat. Cell Biol. 12(2):177-184(2010)Li, X., et al. Sci Signal 3 (119), RA32 (2010) :Groner, A.C., et al. PLoS Genet. 6 (3), E1000869 (2010) :