10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-KAP1/TIF1β Antibody (4E1-D12-F8)

Mouse Monoclonal Antibody
Catalog # ABV12043

Product Information

Application	WB, IHC, IF, IP
Primary Accession	Q13263
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	4E1-D12-F8
Calculated MW	88550

Additional Information

Gene ID	10155
Application & Usage	WB: 293T, Hepg2 cells; IP: HeLa cells; IF: HeLa cells; IHC: human spleen tissue
Other Names	E3 SUMO protein ligase TRIM28; E3 SUMO-protein ligase TRIM28; FLJ29029;KAP 1; KAP-1; KRAB associated protein 1; KRAB interacting protein 1; KRAB-ass ociated protein 1; KRAB-interacting protein 1; KRIP 1; KRIP-1; KRIP1; Nuclear corepressor KAP 1; Nuclear corepressor KAP-1; RING finger protein 96; RNF96; TF1B; TIF1 beta; TIF1-beta; TIF1B; TIF1B_HUMAN; Transcription intermediary factor 1 beta; Transcription intermediary factor 1-beta; TRIM28; Tripartite motif containing 28; tripartite motif containing protein 28; Tripartite motif-containing protein 28.
Target/Specificity	TIF1B
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	In buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50%,glycerol
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-KAP1/TIF1β Antibody (4E1-D12-F8) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TRIM28 (HGNC:16384)
Synonyms	KAP1, RNF96, TIF1B
Function	E3 SUMO and ubiquitin ligase that plays a pivotal role in embryonic development, genomic imprinting, and maintenance of genomic stability through repression of repetitive and retroviral elements. Also involved in DNA repair, regulation of innate immunity or cellular energy homeostasis. Acts as a scaffold for assembling transcriptional repression complexes containing methyltransferases, histone deacetylases, and chromatin remodelers. Serves as a nuclear corepressor for KRAB domain-containing zinc finger proteins (KRAB-ZFPs), mediating gene silencing by recruiting CHD3, a subunit of the nucleosome remodeling and deacetylation (NuRD) complex, and SETDB1, which methylates histone H3 at 'Lys-9' (H3K9me), leading to heterochromatin formation. In collaboration with SETDB1, is also required for H3K9me3 and silencing of endogenous and introduced retroviruses in a DNA- methylation independent-pathway (By similarity). Functions as a coactivator for CEBPB and NR3C1 (glucocorticoid receptor) in transcriptional activation of ORM1, and as a corepressor for ERBB4. Inhibits E2F1 activity by promoting E2F1-HDAC1 complex formation and preventing E2F1 acetylation. This contributes to CDKN1A/p21(CIP1) regulation and provides a partial backup to suppress E2F1-mediated apoptosis in the absence of RB1. Mediates the nuclear localization of several KRAB-ZFP transcription factors including KOX1, ZNF268, and ZNF300 among others. 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). Required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306). Acts as a corepressor for ZFP568. Beyond its nuclear functions, acts as a positive regulator of type I interferon (IFN-I) signaling by promoting Lys-63-linked ubiquitination of TBK1, facilitating TBK1-IRF3 complex formation (PubMed:38495890). Mediates TRAF6 SUMOylation to regulate its nucleo-cytoplasmic shuttling and modulate activation of the canonical NF-kappa-B signaling pathway (PubMed:39920527). Facilitates SUMOylation of NLRP3, protecting it from 'Lys-48'-linked ubiquitination and proteasomal degradation and thereby enhancing inflammasome activation (PubMed:34373456).
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.

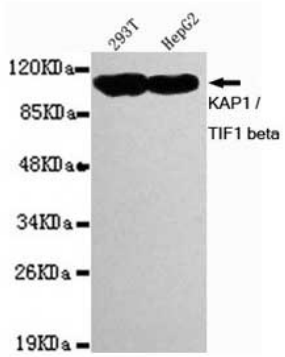
Background

Transcription intermediary factor 1-beta mediates transcriptional control by interaction with the Kruppel-associated box repression domain found in many transcription factors. The protein localizes to the nucleus and is thought to associate with specific chromatin regions. 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.

Images

Western blot detection of KAP1 / TIF1 beta in 293T and HepG2 cell lysates using KAP1 / TIF1 beta mouse mAb

(1:1000 diluted)



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.