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

TERF2IP Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8546b

Product Information

Application	WB, FC, E
Primary Accession	Q9NYB0
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1664CT520.25.66
Calculated MW	44260

Additional Information

Gene ID	54386
Other Names	Telomeric repeat-binding factor 2-interacting protein 1, TERF2-interacting telomeric protein 1, TRF2-interacting telomeric protein 1, Dopamine receptor-interacting protein 5, Repressor/activator protein 1 homolog, RAP1 homolog, hRap1, TERF2IP, DRIP5, RAP1
Target/Specificity	This TERF2IP antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between amino acids from the human region of human TERF2IP.
Dilution	WB~~1:2000 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, 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	TERF2IP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TERF2IP
Synonyms	DRIP5, RAP1

Function	Acts both as a regulator of telomere function and as a transcription regulator. Involved in the regulation of telomere length and protection as a component of the shelterin complex (telosome). In contrast to other components of the shelterin complex, it is dispensible for telomere capping and does not participate in the protection of telomeres against non-homologous end-joining (NHEJ)- mediated repair. Instead, it is required to negatively regulate telomere recombination and is essential for repressing homology- directed repair (HDR), which can affect telomere length. Does not bind DNA directly: recruited to telomeric double-stranded 5'-TTAGGG-3' repeats via its interaction with TERF2. Independently of its function in telomeres, also acts as a transcription regulator: recruited to extratelomeric 5'-TTAGGG-3' sites via its association with TERF2 or other factors, and regulates gene expression. When cytoplasmic, associates with the I-kappa-B-kinase (IKK) complex and acts as a regulator of the NF-kappa-B signaling by promoting IKK-mediated phosphorylation of RELA/p65, leading to activate expression of NF- kappa-B target genes.
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q91VL8}. Cytoplasm {ECO:0000250|UniProtKB:Q91VL8}. Chromosome {ECO:0000250|UniProtKB:Q91VL8}. Chromosome, telomere {ECO:0000250|UniProtKB:Q91VL8}. Note=Associates with chromosomes, both at telomeres and in extratelomeric sites. Also exists as a cytoplasmic form, where it associates with the IKK complex {ECO:0000250|UniProtKB:Q91VL8}
Tissue Location	Ubiquitous. Highly expressed.

Background

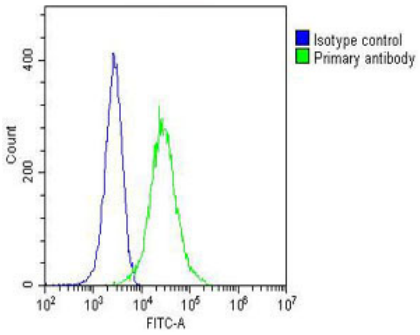
Acts both as a regulator of telomere function and as a transcription regulator. Involved in the regulation of telomere length and protection as a component of the shelterin complex (telosome). In contrast to other components of the shelterin complex, it is dispensible for telomere capping and does not participate in the protection of telomeres against non-homologous end-joining (NHEJ)-mediated repair. Instead, it is required to negatively regulate telomere recombination and is essential for repressing homology-directed repair (HDR), which can affect telomere length. Does not bind DNA directly: recruited to telomeric double-stranded 5'-TTAGGG-3' repeats via its interaction with TERF2. Independently of its function in telomeres, also acts as a transcription regulator: recruited to extratelomeric 5'- TTAGGG-3' sites via its association with TERF2 or other factors, and regulates gene expression. When cytoplasmic, associates with the I-kappa-B-kinase (IKK) complex and acts as a regulator of the NF-kappa-B signaling by promoting IKK-mediated phosphorylation of RELA/p65, leading to activate expression of NF-kappa-B target genes.

References

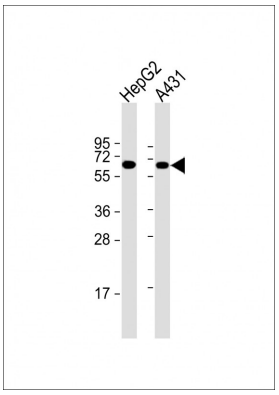
Li B.,et al.Cell 101:471-483(2000).
Lafuente M.J.,et al.Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
Wan D.,et al.Proc. Natl. Acad. Sci. U.S.A. 101:15724-15729(2004).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Martin J.,et al.Nature 432:988-994(2004).

Images

Overlay histogram showing Hela cells stained with AM8546b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific



protein-protein interactions followed by the antibody (AM8546b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OJ192088) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was mouse IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes : Anti-TERF2IP Antibody at 1:2000 dilution Lane 1: HepG2 whole cell lysate Lane 2: A431 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 44 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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