

RAP1A monoclonal antibody

Catalog: MB67229

Host:

Mouse

Reactivity: Human

BackGround:

Telomeric repeat-binding factor 2-interacting protein (TERF2IP, also known as RAP1) is a component of the Shelterin Complex, a multi-protein complex that binds and organizes telomeres into T-loop structures to prevent them from being recognized by the cell as DNA double stranded breaks. The Shelterin Complex is composed of TERF2IP, TIN2 and TPP2 proteins, in addition to three DNA binding proteins that function to recruit the complex to telomeres: TRF1 and TRF2 bind double-stranded TTAGGG repeats found at telomeres, while the POT1 protein binds single-stranded TTAGGG repeats found at the very end of the telomeres. Together, these proteins function to protect telomeres and ensure proper replication and processing of chromosome ends. Recent studies have shown that TERF2IP is dispensable for maintenance of telomere length, organization of telomeric chromatin, and regulation of telomeric transcription. However, TERF2IP is required for inhibition of homology-directed repair (HDR), which can create undesirable telomeric sister chromatid exchange. In addition to its role in telomere maintenance, TERF2IP is also found in the cytoplasm, where it functions as an IkB kinase (IKK) adaptor protein and regulates NF-kB-dependent gene expression. TERF2IP forms a complex with IKKs and is critical for proper recruitment of IKKs to and activation of the p65 subunit of NF-kB. Elevated levels of TERF2IP have been found in breast cancer cells with NF-kB hyperactivity, and knockdown of TERF2IP sensitizes these cells to apoptosis, further identifying TERF2IP as a potential cancer therapeutic target.

Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 60 kDa

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Swiss-Prot:

Q9NYB0

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), FC (1/10 - 1/50)

Storage&Stability:

Store at $4 \,^{\circ}{\rm C}$ short term. Aliquot and store at $-20 \,^{\circ}{\rm C}$ long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of RAP1A protein.

DATA:



Western blot analysis of RAP1A expression in HepG2 (A), A431 (B) whole cell lysates.



Immunohistochemical analysis of RAP1A staining in human testis formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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PRODUCT DATA SHEET

Bioworld Technology,Inc.



Note:

For research use only, not for use in diagnostic procedure.

| Bioworld Technology, Inc. | | Bioworld technology, co. Ltd. | |
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