RAP1 / TERF2IP antibody (pAb)

Catalog Nos: 61069, 61070
RRID: AB_2793494
Isotype: IgG
Application(s): IP, WB
Reactivity: Human

Volumes: 100 µl, 10 µl
Purification: Affinity Purified
Host: Rabbit
Molecular Weight: 55 kDa

Background: RAP1 / **TERF2IP** (**Repressor/activator protein 1**, **Telomeric repeat-binding factor 2-interacting protein 1**) is a protein associated with telomeres that acts both as a modulator of telomere function and as a regulator of transcription. **RAP1** is a component of the **shelterin** (telosome) protein complex and is involved in the regulation of telomere length and serves to protect telomeric repeats from degradation. In contrast to other components of the shelterin complex, RAP1 is dispensable for telomere end-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. RAP1 is recruited to telomeric repeats via its interaction with TERF2. Independent of its function in telomeres, RAP1 also acts as a transcriptional regulator. It is recruited to non-telomeric 5'-TTAGGG-3' sites via its association with TERF2 or other factors, and regulates gene expression. RAP1 is also present in the cytoplasm and associates with the IκB-kinase (IKK) complex and acts as a regulator of the NFκB signaling by promoting IKK-mediated phosphorylation of RELA/p65, leading to activation of the expression of NFκB target genes.

Immunogen: This RAP1 / TERF2IP antibody was raised against a peptide within human RAP1 / TERF2IP.

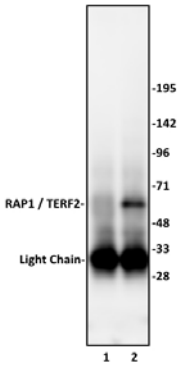
Buffer: Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:
Applications Validated by Active Motif:
IP: 10 µl per IP
WB*: 1:500 - 1:2,000 dilution

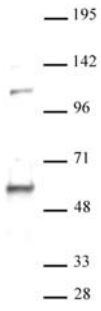
*Note: many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western blot.

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



RAP1 / TERF2IP antibody (pAb) tested by Immunoprecipitation.
10 µl of RAP1 / TERF2IP antibody was used to immunoprecipitate RAP1 / TERF2IP from 250 µg of K-562 nuclear cell extract (lane 2). 10 µl of rabbit IgG was used as a negative control (lane 1). The immunoprecipitated protein was detected by Western blotting using the RAP1 / TERF2IP antibody at a dilution of 1:500.



RAP1 / TERF2IP antibody (pAb) tested by Western blot.
Nuclear extract of K-562 cells (30 µg) probed with RAP1 / TERF2IP antibody (pAb) at a dilution of 1:500.