

Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP1922b**Specification**

Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide - Product InformationPrimary Accession [O9Y230](#)
Other Accession [Q6FIB9](#)**Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide - Additional Information****Gene ID** 10856**Other Names**

RuvB-like 2, 48 kDa TATA box-binding protein-interacting protein, 48 kDa TBP-interacting protein, 51 kDa erythrocyte cytosolic protein, ECP-51, INO80 complex subunit J, Repressing pontin 52, Reptin 52, TIP49b, TIP60-associated protein 54-beta, TAP54-beta, RUVBL2, INO80J, TIP48, TIP49B

Target/SpecificityThe synthetic peptide sequence used to generate the antibody [AP1922b](/product/products/AP1922b) was selected from the Center region of human RUVBL2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.**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.

Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide - Protein Information**Name** RUVBL2**Synonyms** INO80J, TIP48, TIP49B**Function**Possesses single-stranded DNA-stimulated ATPase and ATP- dependent DNA helicase (5' to 3') activity; hexamerization is thought to be critical for ATP hydrolysis and adjacent subunits in the ring- like structure contribute to the ATPase activity (PubMed: [10428817](http://www.uniprot.org/citations/10428817), PubMed: [17157868](http://www.uniprot.org/citations/17157868), PubMed: [33205750](http://www.uniprot.org/citations/33205750)). Component of the NuA4 histone acetyltransferase complex which is involved in transcriptional activation of

select genes principally by acetylation of nucleosomal histones H4 and H2A (PubMed:14966270). This modification may both alter nucleosome -DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription (PubMed:14966270). This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair (PubMed:14966270). The NuA4 complex ATPase and helicase activities seem to be, at least in part, contributed by the association of RUVBL1 and RUVBL2 with EP400 (PubMed:14966270). NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage (PubMed:14966270). Component of a SWR1-like complex that specifically mediates the removal of histone H2A.Z/H2AZ1 from the nucleosome (PubMed:24463511). Proposed core component of the chromatin remodeling INO80 complex which exhibits DNA- and nucleosome-activated ATPase activity and catalyzes ATP- dependent nucleosome sliding (PubMed:16230350, PubMed:21303910). Plays an essential role in oncogenic transformation by MYC and also modulates transcriptional activation by the LEF1/TCF1-CTNNB1 complex (PubMed:10882073, PubMed:16014379). May also inhibit the transcriptional activity of ATF2 (PubMed:11713276). Involved in the endoplasmic reticulum (ER)-associated degradation (ERAD) pathway where it negatively regulates expression of ER stress response genes (PubMed:25652260). May play a role in regulating the composition of the U5 snRNP complex (PubMed:28561026).

Cellular Location

Nucleus matrix. Nucleus, nucleoplasm. Cytoplasm. Membrane. Dynein axonemal particle {ECO:0000250|UniProtKB:Q9DE27} Note=Mainly localized in the nucleus, associated with nuclear matrix or in the nuclear cytosol. Although it is also present in the cytoplasm and associated with the cell membranes

Tissue Location

Ubiquitously expressed. Highly expressed in testis and thymus.

Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide - Images

Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide - Background

RUVBL2 is the second human homologue of the bacterial RuvB gene. Bacterial RuvB protein is a DNA helicase essential for homologous recombination and DNA double-strand break repair. RUVBL2 possesses single-stranded DNA-stimulated ATPase and ATP-dependent DNA helicase (5' to 3') activity. It is a component of the NuA4 histone acetyltransferase complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histone H4 and H2A. This modification may both alter nucleosome - DNA interactions and promote interaction of

the modified histones with other proteins which positively regulate transcription. This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair. The NuA4 complex ATPase and helicase activities seem to be, at least in part, contributed by the association of RUVBL1 and RUVBL2 with EP400. NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage. RUVBL2 plays an essential role in oncogenic transformation by MYC and also modulates transcriptional activation by the LEF1/TCF1 -CTNNB1 complex. This protein may also inhibit the transcriptional activity of ATF2.

Reptin/TIP49B/RUVB2 Antibody (Center) Blocking peptide - References

Bauer, A., et al., EMBO J. 19(22):6121-6130 (2000). Ikura, T., et al., Cell 102(4):463-473 (2000). Parfait, B., et al., Ann. Genet. 43(2):69-74 (2000). Wood, M.A., et al., Mol. Cell 5(2):321-330 (2000). Salzer, U., et al., Biochim. Biophys. Acta 1446(3):365-370 (1999).