

Reptin/TIP49B/RUVB2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP57680

Specification

Reptin/TIP49B/RUVB2 Polyclonal Antibody - Product Information

Application WB, IHC-P, IHC-F, IF, ICC, E

Primary Accession <u>O9Y230</u>

Reactivity Rat, Pig, Dog, Bovine

Host Rabbit
Clonality Polyclonal
Calculated MW 51 KDa
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived

laG

from human Reptin/TIP49B/RUVB2

Epitope Specificity 301-400/463

Isotype
Purity
affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Nucleus matrix. Nucleus > nucleoplasm.

Cytoplasm. Membrane. 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.

SIMILARITY Belongs to the ruvB family.

SUBUNIT Forms homohexameric rings (Probable).

Can form a dodecamer with RUVBL1 made

of two stacked hexameric rings;

however, though RUVBL1 and RUVBL2 are present in equimolar ratio, the oligomeric status of each hexamer is not known. the transcriptional activation domain of MYC

Post-translational modifications Phosphorylated upon DNA damage,

probably by ATM or ATR.

Important Note This product as supplied is intended for

research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

This gene encodes 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. Functional analysis showed that this gene product has both ATPase and DNA helicase activities. This gene is physically linked to the CGB/LHB gene cluster on chromosome 19q13.3, and is very close (55 nt) to the LHB gene, in the opposite orientation. [provided by RefSeq, Jul 2008]

Reptin/TIP49B/RUVB2 Polyclonal Antibody - Additional Information



Gene ID 10856

Other Names

RuvB-like 2, 3.6.4.12, 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/Specificity

Ubiquitously expressed. Highly expressed in testis and thymus.

Dilution

 $< span class = "dilution_WB">WB~~1:1000< br \>< span class = "dilution_IHC-P">IHC-P~~N/A< br \>< span class = "dilution_IHC-F">IHC-F~~N/A< br \>< span class = "dilution_IF">IF~~1:50~200< br \>< span class = "dilution_ICC">ICC~~N/A< br \>< span class = "dilution_E">E~~N/A< span$

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Reptin/TIP49B/RUVB2 Polyclonal Antibody - 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, PubMed:17157868, PubMed: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:<a

 $href="http://www.uniprot.org/citations/10882073" target="_blank">10882073, PubMed:16014379). May also inhibit the transcriptional activity of ATF2 (PubMed:<a$

href="http://www.uniprot.org/citations/11713276" target="_blank">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.

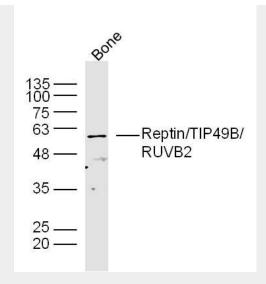
Reptin/TIP49B/RUVB2 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Reptin/TIP49B/RUVB2 Polyclonal Antibody - Images

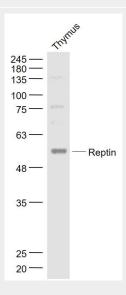




Sample: bone (mouse) Lysate at 40 ug

Primary: Anti-Reptin/TIP49B/RUVB2(bs-19836R)at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size:51kD Observed band size: 51 kD



Sample:

Thymus (Mouse) Lysate at 40 ug

Primary: Anti- Reptin (bs-19836R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 51 kD Observed band size: 54 kD