

# **RUVB1** Rabbit pAb

CatalogNo: YT7330

## Key Features

Host SpeciesRabbit

Reactivity

Human,Mouse,Rat

Applications
• WB

MW • 50kD (Calculated) Isotype • IgG

### **Recommended Dilution Ratios**

#### WB 1:500-2000

#### **Storage**

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

#### **Basic Information**

Clonality Polyclonal

#### Immunogen Information

Immunogen	Synthesized peptide derived from human RUVB1 AA range: 195-245
Specificity	This antibody detects endogenous levels of RUVB1 at Human/Mouse/Rat

#### **Target Information**

Gene name RUVBL1 INO80H NMP238 TIP49 TIP49A

Organism	Gene ID	UniProt ID
Human	<u>8607;</u>	<u>Q9Y265;</u>
Mouse	<u>56505;</u>	<u>P60122;</u>
Rat	<u>65137;</u>	<u>P60123;</u>

Cellular Localization

Nucleus matrix. Nucleus, nucleoplasm. Cytoplasm . Membrane . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Dynein axonemal particle . 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. In prophase and prometaphase it is located at the centrosome and the branching microtubule spindles. After mitotic nuclear membrane disintigration it accumulates at the centrosome and sites of tubulin polymerization. As cells pass through metaphase and into telophase it is located close to the centrosome at the early phase of tubulin polymerization. In anaphase it accumulates at the zone of tubule interdigitation. In telophase it is found at polar tubule overlap, and it reappears at the site of chromosomal decondensation in the daughter cells.

**Tissue specificity** Ubiquitously expressed with high expression in heart, skeletal muscle and testis.

Function

Domain: Binding to MYC is dependent on a Myc domain essential for oncogenic activity.,Function:Essential for cell proliferation.,Function:May be able to bind plasminogen at cell surface and enhance plasminogen activation., Function: Possesses single-stranded DNA-stimulated ATPase and ATP-dependent DNA helicase (3' to 5') activity. Component of the NuA4 histone acetyltransferase complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histories 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. RUVBL1 plays an essential role in oncogenic transformation by MYC and also modulates transcriptional activation by the LEF1/TCF1-CTNNB1 complex., miscellaneous: High level of autoantibodies against RUVBL1 are detected in sera of patients with autoimmune diseases such as polymyositis/dermatomyosistis and autoimmune hepatitis., similarity: Belongs to the ruvB family., subcellular location: 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. In prophase and prometaphase it is located at the centrosome and the branching microtubule spindles. After mitotic nuclear membrane disintigration it accumulates at the centrosome and sites of tubulin polymerization. As cells pass through metaphase and into telophase it is located close to the centrosome at the early phase of tubulin polymerization. In anaphase it accumulates at the zone of tubule interdigitation. In telophase it is found at polar tubule overlap, and it reappears at the site of chromosomal decondensation in the daughter cells.,subunit:Forms homotypic and heterotypic interactions. Forms a multimeric complex with RUVBL2. Interacts with the transcriptional activation domain of MYC. Component of the RNA polymerase II holoenzyme complex. May also act to bridge the LEF1/TCF1-CTNNB1 complex and TBP. Component of the NuA4 histone acetyltransferase complex which contains the catalytic subunit HTATIP/TIP60 and the subunits EP400, TRRAP/PAF400, BRD8/SMAP, EPC1, DMAP1/DNMAP1, RUVBL1/TIP49, RUVBL2, ING3, actin, ACTL6A/BAF53A, MORF4L1/MRG15, MORF4L2/MRGX, MRGBP, YEATS4/GAS41, VPS72/YL1 and EAF6. The NuA4 complex interacts with MYC and the adenovirus E1A protein. RUVBL1 interacts with EP400. Component of a NuA4-related complex which contains EP400, TRRAP/PAF400, SRCAP, BRD8/SMAP, EPC1, DMAP1/DNMAP1, RUVBL1/TIP49, RUVBL2, actin, ACTL6A/BAF53A, VPS72 and YEATS4/GAS41. Component of the BAF53 complex, at least composed of ACTL6A/BAF53A, RUVBL1/TIP49, SMARCA2/BRM, and TRRAP/PAF400. Associates with alpha and gamma tubulins, particularly during metaphase and early anaphase. Interacts with NPAT. Component of the chromatin-remodeling INO80 complex, at least composed of ACTL6A, ACTR5, ACTR8, RVBL1, RVBL2, INO80, INO80B, INO80C, INO80D and INO80E., tissue specificity: Ubiquitously expressed with high expression in heart, skeletal muscle and testis.,

#### Validation Data



Western blot analysis of lysates from MCF-7 cells, primary antibody was diluted at 1:1000, 4° over night

#### **Contact information**

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