RUVBL1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	RUVBL1, Polyclonal Antibody
Full Product Name	RUVBL1 Antibody
Product Gene Name	anti-RUVBL1 antibody
Product Synonym Names	RVB1; TIH1; ECP54; TIP49; INO80H; NMP238; PONTIN; TIP49A; Pontin52
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Rabbit IgG in pH7.4 PBS, 0.05% NaN3, 40% Glycerol.
Purity/Purification	Antigen affinity purification.
Specificity	The antibody detects endogenous levels of total RUVBL1 protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	42,127 Da
OMIM	603449
3D Structure	ModBase 3D Structure for Q9Y265
Immunogen	Fusion protein of human RUVBL1
Product Categories/Family for anti-RUVBL1 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-RUVBL1 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-RUVBL1 antibody	WB: 1:500-1:2000 IHC: 1:25-1:100
Related Product Information for anti-RUVBL1 antibody	Possesses single-stranded DNA-stimulated ATPase and ATP-dependent DNA helicase (3' to 5') activity; hexamerization is thought to be critical for ATP hydrolysis and adjacent subunits in the ring-like structure contribute to the ATPase activity. 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. This modification may both alter nucleosome - DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription.
Other Notes	Small volumes of anti-RUVBL1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RUVBL1 purchase	MBS8593645 is an antibody targeting RUVBL1. Also known as RUVBL1 Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RUVBL1. It may not necessarily be applicable to this product.

NCBI GI #	197276633
NCBI GeneID	8607
NCBI Accession #	NP_003698.1
UniProt Primary Accession #	Q9Y265
UniProt Secondary Accession #	P82276; Q1KMR0; Q53HK5; Q53HL7; Q53Y27; Q9BSX9; B2R5S0
UniProt Related Accession #	Q9Y265
GenBank Nucleotide #	NM_003707
NCBI Official Full Name	Homo sapiens RuvB-like AAA ATPase 1 (RUVBL1), mRNA
NCBI Official Synonym Full Names	RuvB-like AAA ATPase 1
NCBI Official Symbol	RUVBL1
NCBI Official Synonym Symbols	RVB1; TIH1; ECP54; TIP49; INO80H; NMP238; PONTIN; TIP49A; Pontin52
UniProt Protein Name	RuvB-like 1
UniProt Synonym Protein Names	49 kDa TATA box-binding protein-interacting protein; 49 kDa TBP-interacting protein; 54 kDa erythrocyte cytosolic protein; ECP-54; INO80 complex subunit H; Nuclear matrix protein 238; NMP 238; Pontin 52; TIP49a; TIP60-associated protein 54-alpha; TAP54-alpha
Protein Family	RuvB
UniProt Gene Name	RUVBL1
UniProt Synonym Gene Names	INO80H; NMP238; TIP49; TIP49A; 49 kDa TBP-interacting protein; ECP-54; NMP 238; TAP54-alpha
UniProt Entry Name	RUVB1_HUMAN
NCBI Protein Information	ruvB-like 1; 49 kDa TATA box-binding protein-interacting protein; 49 kDa TBP-interacting protein; 54 kDa erythrocyte cytosolic protein; ECP-54; INO80 complex subunit H; NMP 238; RuvB (E coli homolog)-like 1; TAP54-alpha; TATA binding protein interacting p

UniProt Comments for RUVBL1	RUVBL1: 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 histones 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. Belongs to the ruvB family. 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 KAT5/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 MEAF6. 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. Component of some MLL1/MLL complex, at least composed of the core components MLL, ASH2L, HCFC1/HCF1, WDR5 and RBBP5, as well as the facultative components C17orf49, CHD8, E2F6, HSP70, IN80C, KIAA1267, LAS1L, MAX, MCRS1, MGA, MYST1/MOF, PELP1, PHF20, PRP31, RING2, RUVB1/TIP49A, RUVB2/TIP49B, SENP3, TAF1, TAF4, TAF6, TAF7, TAF9 and TEX10. 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. Interacts with IGHMBP2. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 3.6.4.12; Motility/polarity/chemotaxis; Helicase Chromosomal Location of Human Ortholog: 3q21 Cellular Component: nucleoplasm; Golgi apparatus; NuA4 histone acetyltransferase complex; nuclear matrix; intracellular membrane-bound organelle; membrane; cytoplasm; microtubule organizing center; nucleus Molecular Function: protein binding; DNA helicase activity; ATPase activity; ATP binding Biological Process: regulation of transcription from RNA polymerase II promoter; nucleosome assembly; mitosis; establishment and/or maintenance of chromatin architecture; DNA replication-independent nucleosome assembly at centromere; transcription, DNA-dependent; cell division; regulation of growth; spermatogenesis; DNA repair; DNA duplex unwinding; DNA recombination
Research Articles on RUVBL1	**1.** Reptin and Pontin oligomerization and activity are modulated through histone H3 N-terminal tail interaction.
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