RUVBL1 cDNA Clone – Ruvb-Like 1 (E. Coli) (Human)

PRODUCT OVERVIEW

Product Name	RUVBL1, cDNA Clone
Full Product Name	RUVBL1 cDNA Clone
Product Gene Name	RUVBL1 cdna clone
Sequence	atgaagattg aggaggtgaa gagcactacg aagacgcagc gcatcgcctc ccacagccac gtgaaagggc tggggctgga cgagagcggc ttggccaagc aggcggcctc agggcttgtg ggccaggaga acgcgcgaga ggcatgtggc gtcatagtag aattaatcaa aagcaagaaa atggctggaa gagctgtctt gttggcagga cctcctggaa ctggcaagac agctctggct ctggctattg ctcaggagct gggtagtaag gtccccttct gcccaatggt ggggagtgaa gtttactcaa ctgagatcaa gaagacagag gtgctgatgg agaacttccg cagggccatt gggctgcgaa taaaggagac caaggaagtt tatgaaggtg aagtcacaga gctaactccg tgtgagacag agaatcccat gggaggatat ggcaaaacca ttagccatgt gatcatagga ctcaaaacag ccaaaggaac caaacagttg aaactggacc ccagcatttt tgaaagtttg cagaaagagc gagtagaagc tggagatgtg atttacattg aagccaacag tggggccgtg aagaggcagg gcaggtgtga tacctatgcc acagaattcg accttgaagc tgaagagtat gtccccttgc caaaagggga tgtgcacaaa aagaaagaaa tcatccaaga tgtgaccttg catgacttgg atgtggctaa tgcgcggccc caggggggac aagatatcct gtccatgatg ggccagctaa tgaagccaaa gaagacagaa atcacagaca aacttcgagg ggagattaat aaggtggtga acaagtacat cgaccagggc attgctgagc tggtcccggg tgtgctgttt gttgatgagg tccacatgct ggacattgag tgcttcacct acctgcaccg cgccctggag tcttctatcg ctcccatcgt catctttgca tccaaccgag gcaactgtgt catcagaggc actgaggaca tcacatcccc tcacggcatc cctcttgacc ttctggaccg agtgatgata atccggacca tgctgtatac tccacaggaa atgaaacaga tcattaaaat ccgtgcccag acggaaggaa tcaacatcag tgaggaggca ctgaaccacc tgggggagat tggcaccaag accacactga ggtactcagt gcagctgctg accccggcca acttgcttgc taaaatcaac gggaaggaca gcattgagaa agagcatgtc gaagagatca gtgaactttt ctatgatgcc aagtcctccg ccaaaatcct ggctgaccag caggataagt acatgaagtg a
Molecular Weight	42,127 Da
OMIM	603449
Vector	pENTR223.1 or pUC
Clone Sequence Report	Provided with product shipment
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for RUVBL1 cdna clone	MBS1266552 is a cDNA clone targeting RUVBL1.
Other Notes	Small volumes of RUVBL1 cdna clone 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.

ADDITIONAL DETAILS

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

NCBI GI #	12804268
NCBI GeneID	8607
NCBI Accession #	BC002993
UniProt Secondary Accession #	P82276; Q1KMR0; Q53HK5; Q53HL7; Q53Y27; Q9BSX9; B2R5S0
UniProt Related Accession #	Q9Y265
NCBI Official Full Name	Homo sapiens RuvB-like 1 (E. coli), mRNA
NCBI Official Synonym Full Names	RuvB like AAA ATPase 1
NCBI Official Symbol	RUVBL1

NCBI Official Synonym Symbols	RVB1; TIH1; ECP54; TIP49; ECP-54; INO80H; NMP238; PONTIN; TIP49A; NMP 238; 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
NCBI Summary for RUVBL1	This gene encodes a protein that has both DNA-dependent ATPase and DNA helicase activities and belongs to the ATPases associated with diverse cellular activities (AAA+) protein family. The encoded protein associates with several multisubunit transcriptional complexes and with protein complexes involved in both ATP-dependent remodeling and histone modification. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]
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: Helicase; EC 3.6.4.12; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 3q21 Cellular Component: cell-cell adherens junction; cytoplasm; Golgi apparatus; intracellular membrane-bound organelle; NuA4 histone acetyltransferase complex; nucleoplasm; nucleus Molecular Function: ATPase activity; DNA helicase activity; protein binding Biological Process: box C/D snoRNP assembly; chromatin remodeling; DNA repair; DNA replication-independent nucleosome assembly at centromere; regulation of transcription from RNA polymerase II promoter; spermatogenesis

Research Articles on RUVBL1	**1.** The interaction of ECD with RUVBL1, and its CK2-mediated phosphorylation, independent of its interaction with PIH1D1, are important for its cell cycle regulatory function.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/cdna-clone/ruvbl1/1266552