

## RUVBL2 Protein, Human (His-SUMO)

<b>Cat. No.:</b>	HY-P71661
<b>Synonyms:</b>	48kDa TATA box-binding protein-interacting protein; CGI-46; TIH2; TIP48; TIP49b; TIP60-associated protein 54-beta; wu:fi25f01; zreptin
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	Q9Y230 (2A-463S)
<b>Gene ID:</b>	10856
<b>Molecular Weight:</b>	Approximately 67.0 kDa

### PROPERTIES

#### AA Sequence

ATVTATTKVP	EIRDVTRIER	IGAHSHIRGL	GLDDALEPRQ
ASQGMVGQLA	ARRAAGVVLE	MIREGKIAGR	AVLIAGQPGT
GKTAIAMGMA	QALGPDTPFT	AIAGSEIFSL	EMSKTEALTQ
AFRRSIGVRI	KEETEIEEGE	VVEIQIDRPA	TGTGSKVVKL
TLKTTEMETI	YDLGTKMIES	LTKDKVQAGD	VITIDKATGK
ISKLGRSFTTR	ARDYDAMGSQ	TKFVQCPDGE	LQKRKEVVHT
VSLHEIDVIN	SRTQGFLALF	SGDTGEIKSE	VREQINAKVA
EWREEGKAEI	IPGVLFIDEV	HMLDIESFSF	LNRALES DMA
PVLIMATNRG	ITRIRGTSYQ	SPHGIPIDLL	DRL LIVSTTP
YSEKDTKQIL	RIRCEEEDVE	MSEDAYTVLT	RIGLETSRLY
AIQLITAASL	VCRKRKGTEV	QVDDIKRVYS	LFLDES RSTQ
YMKEYQDAFL	FNELKGETMD	TS	

<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized after extensive dialysis against solution in 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

## Background

RUVBL2 protein possesses single-stranded DNA-stimulated ATPase and ATP-dependent DNA helicase (5' to 3') activity, with hexamerization considered critical for ATP hydrolysis, and adjacent subunits in the ring-like structure contributing to the ATPase activity. As a component of the NuA4 histone acetyltransferase complex, RUVBL2 is involved in the transcriptional activation of select genes, primarily through the acetylation of nucleosomal histones H4 and H2A. This modification may alter nucleosome-DNA interactions and promote interaction of the modified histones with other proteins that positively regulate transcription. The NuA4 complex, including the ATPase and helicase activities, is, 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. Furthermore, RUVBL2 is a component of a SWR1-like complex responsible for the removal of histone H2A.Z/H2AZ1 from the nucleosome and is proposed as a core component of the chromatin remodeling INO80 complex, which exhibits DNA- and nucleosome-activated ATPase activity and catalyzes ATP-dependent nucleosome sliding. RUVBL2 plays an essential role in oncogenic transformation by MYC and also modulates transcriptional activation by the LEF1/TCF1-CTNNB1 complex. Additionally, it may inhibit the transcriptional activity of ATF2 and is involved in the endoplasmic reticulum (ER)-associated degradation (ERAD) pathway, negatively regulating expression of ER stress response genes. RUVBL2 may also play a role in regulating the composition of the U5 snRNP complex.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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