Data Sheet (Cat.No.TMPY-03263)

TargetMol

RUVBL1 Protein, Human, Recombinant (His)

General Information

Synonyms:	TIH1;ECP54;TIP49;RuvB-like AAA ATPase 1;PONTIN;TIP49A;INO80H;RVB1;Pontin52;NMP238
Protein Construction:	A DNA sequence encoding the human RUVBL1 (Q9Y265-1) (Met1-Lys456) was fused with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q9Y265-1
Molecular Weight:	52.4 kDa (predicted); 57 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM Nacl, pH 7.4, 10% glycerol. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

RUVBL1, also known as RVB1, is a component of the NuA4 histone acetyltransferase complex and belongs to the RuvB family. RUVBL1 is ubiquitously expressed with high expression in heart, skeletal muscle and testis. It possesses single-stranded DNA-stimulated ATPase and ATP-dependent DNA helicase (3' to 5') activity. RUVBL1 is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histones H4 and H2A. RUVBL1 plays an essential role in oncogenic transformation by MYC and also modulates transcriptional

activation by the LEF1/TCF1-CTNNB1 complex. It also is essential for cell proliferation. RUVBL1 may be able to bind plasminogen at cell surface and enhance plasminogen activation.

Reference

Bauer A, et al. (1998) Pontin52, an interaction partner of beta-catenin, binds to the TATA box binding protein. Proc Natl Acad Sci. 95(25):14787-92.

Ewing, et al. (2007) Large-scale mapping of human protein-protein interactions by mass spectrometry. Mol Syst Biol. 3(1):89.

Puri T, et al. (2007) Dodecameric structure and ATPase activity of the human TIP48/TIP49 complex. J Mol Biol. 366 (1):179-92.

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