Recombinant Mouse Ddx1 Protein, MYC/DDK-tagged

Cat. No. Ddx1-266M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of full-length mouse DEAD (Asp-Glu-Ala-Asp) box polypeptide 1 (Ddx1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Acts as an ATP-dependent RNA helicase, able to unwind both RNA-RNA and RNA-DNA duplexes. Possesses 5' single-stranded RNA overhang nuclease activity. Possesses ATPase activity on various RNA, but not DNA polynucleotides. May play a role in RNA clearance at DNA double-strand breaks (DSBs), thereby facilitating the template-guided repair of transcriptionally active regions of the genome. Together with RELA, acts as a coactivator to enhance NF-kappa-B-mediated transcriptional activation. Acts as a positive transcriptional regulator of cyclin CCND2 expression. Binds to the cyclin CCND2 promoter region. Associates with chromatin at the NF-kappa-B promoter region via association with RELA. Binds to poly(A) RNA. May be involved in 3'-end cleavage and polyadenylation of pre-mRNAs. Component of the tRNA-splicing ligase complex required to facilitate the enzymatic turnover of catalytic subunit RTCB: together with archease (ZBTB8OS), acts by facilitating the guanylylation of RTCB, a key intermediate step in tRNA ligation. Component of a multi-helicase-TICAM1 complex that acts as a cytoplasmic sensor of viral double-stranded RNA (dsRNA) and plays a role in the activation of a cascade of antiviral responses including the induction of proinflammatory cytokines via the adapter molecule TICAM1. Specifically binds (via helicase ATP-binding domain) on both short

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	and long poly(I:C) dsRNA.
Molecular Mass	82.5 kDa
Purity	>80%, as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 ug/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Ddx1 DEAD box helicase 1 [Mus musculus (house mouse)]
Official Symbol	Ddx1
Synonyms	Ddx1; DEAD box helicase 1; DBP-RB; AA409185; ATP-dependent RNA helicase DDX1; DEAD (Asp-Glu-Ala-Asp) box polypeptide 1; DEAD box protein 1; DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1; EC 3.6.4.13
Gene ID	104721
mRNA Refseq	NM_134040
Protein Refseq	NP_598801

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UniProt ID	Q91VR5

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