

## Product datasheet for TP526419

### Dhx36 (NM\_028136) Mouse Recombinant Protein

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Mouse DEAH (Asp-Glu-Ala-His) box polypeptide 36 (Dhx36), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
<b>Species:</b>	Mouse
<b>Expression Host:</b>	HEK293T
<b>Expression cDNA Clone or AA Sequence:</b>	>MR226419 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)
	<p>MSYDYHQSWSRDGGPRGSGQGSSGGGGGSRGSGGGGGGRGGRGRHPAHLKGREIGLWYAKKQTQKNKEAE RQERAVVHMDERREEQIVQLLSVQAKTDKDKSEAQISWFAPEDHGYGTEVSSEKKINSEKKLDNQEKKLL NQEKKTFRITDKSYIDRDTEYLLQENEPNLSLDQHLLDLQRKKTDPRIEMQFRKKLPSYGMQKELVN LINNHQVTVISGETGCGKTTQVTQFILDNYIERGKGSACRIVCTQPRRISVAERVATERAESCNGN STGYQIRLQSRPRKQGSILYCTTGIIQWLQSDSRLSSVSHIVLDEIHERNLQSDVLMTVIKDLLHFRS DLKIVILMSATLNAEKFSYFGNCPMIHIPGFTFPVVEYLLEDIEKIRYVPDQKEHRSQFKRGMQGHVN RQEKEEKEAIYKERWPAYIKELRTRYASTVDVLQMMDDDKVDLNLIAALIRYIVLEEDGAILVFLPGW DNISTLHDLLMSQVMFKSDKFLIPLHSLMPTVNQTQVFKKTTPGVRKIVATNIAETSITIDDVVYVID GGKIKETHFDTQNNISTMSAEWVSKANAKQRKGRAGRVQPGHCYHLYNGLRASLLDDYQLPEILRTPLEE LCLQIKILRLGGIAYFLSRLMDPPSNEAVLSIKHLMELSALDKQEELTPLGVHLARLPVEPHIGKMILF GALFCCLDPVLTIAASLSFKDPFVIPLGKEKIADARRKELAKETRS DHLT VVNAFEGWEEAKRRGFYEK DYCWEYFLSSNTLQMLHNMKGQFAEHLGAGFVSSRSPKDPKANINSDNEKI KAVICAGLYPKVAKIRL NLGKKRKMVKVHTKSDGLVSIHPKSVNVEQTFHYNWLIYHLKMRTSSYLYDCTEVSPYCLLFFGGDIS IQKDKDQEIIAVDEWIVFQSPERIAHLVKGLRKELDSLLQEIESPHVPVDWDDTKSRDCAVLSAILDLIK TQEKATPRNLPPRSQDGYYS</p> <p><b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b></p>
<b>Tag:</b>	C-MYC/DDK
<b>Predicted MW:</b>	113.8 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<u><a href="#">NP_082412</a></u>
<b>Locus ID:</b>	72162
<b>UniProt ID:</b>	<u><a href="#">Q8VHK9</a></u>
<b>RefSeq Size:</b>	4975
<b>Cytogenetics:</b>	3 E1
<b>RefSeq ORF:</b>	3003
<b>Synonyms:</b>	2810407E23Rik; AI452301; AU022184; Ddx36; mKIAA1488

**Summary:**

Multifunctional ATP-dependent helicase that unwinds G-quadruplex (G4) structures (PubMed:25611385). Plays a role in many biological processes such as genomic integrity, gene expression regulations and as a sensor to initiate antiviral responses (PubMed:21703541, PubMed:21590736). G4 structures correspond to helical structures containing guanine tetrads (By similarity). Binds with high affinity to and unwinds G4 structures that are formed in nucleic acids (G4-ADN and G4-RNA) (By similarity). Plays a role in genomic integrity (By similarity). Converts the G4-RNA structure present in telomerase RNA template component (TREC) into a double-stranded RNA to promote P1 helix formation that acts as a template boundary ensuring accurate reverse transcription (By similarity). Plays a role in transcriptional regulation. Resolves G4-DNA structures in promoters of genes, such as YY1, KIT/c-kit and ALPL and positively regulates their expression (PubMed:25611385) (By similarity). Plays a role in post-transcriptional regulation (By similarity). Unwinds a G4-RNA structure located in the 3' UTR polyadenylation site of the pre-mRNA TP53 and stimulates TP53 pre-mRNA 3'-end processing in response to ultraviolet (UV)-induced DNA damage (By similarity). Binds to the precursor-microRNA-134 (pre-miR-134) terminal loop and regulates its transport into the synapto-dendritic compartment (By similarity). Involved in the pre-miR-134-dependent inhibition of target gene expression and the control of dendritic spine size (By similarity). Plays a role in the regulation of cytoplasmic mRNA translation and mRNA stability (By similarity). Binds to both G4-RNA structures and alternative non-quadruplex-forming sequence within the 3' UTR of the PITX1 mRNA regulating negatively PITX1 protein expression (By similarity). Binds to both G4-RNA structure in the 5'-UTR and AU-rich elements (AREs) localized in the 3' UTR of NKX2-5 mRNA to either stimulate protein translation or induce mRNA decay in an ELAVL1-dependent manner, respectively (By similarity). Binds also to ARE sequences present in several mRNAs mediating exosome-mediated 3'-5' mRNA degradation (By similarity). Involved in cytoplasmic urokinase-type plasminogen activator (uPA) mRNA decay (By similarity). 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 (PubMed:21703541). Required for the early embryonic development and hematopoiesis (PubMed:22422825). Involved in the regulation of cardioblast differentiation and proliferation during heart development (PubMed:26489465). Involved in spermatogonia differentiation (PubMed:25611385). May play a role in ossification (PubMed:21590736).[UniProtKB/Swiss-Prot Function]