

Product datasheet for TP300934M

MOV10 (NM_020963) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human Mov10, Moloney leukemia virus 10, homolog (mouse) (MOV10), transcript variant 1, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC200934 protein sequence Red=Cloning site Green=Tags(s)

MPSKFSCRQLREAGQCFESFLWRGLDMETDRERLRTIYNRDFKISFGTPAPGFSSMLYGMKIANLAYVT
KTRVRFRLDRWADVRFPEKRRMKLGSDISKHHKSLAKIFYDRAEYLHGKHGVDVEVQGPHEARDGQLL
IRLDLNRKEVLTLLRNRGGTQSVTLTHLFLCPTQAFYNEQELPCPLGPGECYELHVHCKTSFVGYF
PATVLWELLGPGESGSEGAGTFYIARFLAAVAHSPAAQLKPMTPFKRTRITGNPVVTNRIEEGERPDRA
KGYDLELSMALGTYPPRRLRQLLPMMLLQGTSIFTAPKEIAEIKAQLETALKWRNYEVKLRLLHLEELQ
MEHDIRHYDLESVPMTWDPVDQNPRLTLEVPGVTESRPSVLRGDHLFALLSSETHQEDPITYKGFVHKV
ELDRVKLSFSMSLLSRFVDGLTFKVNFTFNRPQLRVQHRALELTGRWLLWPMLFPVAPRDVPLLPDVKL
KLYDRSLESNPEQLQAMRHIVTGTRPAPYIIFGPPGTGKTVTLVEAIKQVVKHLPKHAHILACAPSNSGA
DLLCQRLRVHLPSSIRLLAPSRDIRMVPEDIKPCCNWDAKKGEYVFPKAKKLQYRVLITLITAGRLV
SAQFPIDHFTHFIDEAGHCMEPESLVAIAGLMEVKETGDPGGQLVLAGDPRQLGPNVLRSPKQKHGLGY
SLLERLLTYNSLYKKGPDGYDPQFITKLLRNYSHTILDIPNQLYYEGELQACADVDRERFCRWAGLP
RQGFPIIFHGVMGKDEREGNSPFFNPEEAATVTSYLKLLAPSSKKGKARLSPRSVGVISPYRKQVEKI
RYCITKLDRELRLDDIKDLKVGSVVEEFQEQERSVILISTVRSSQSFVQLDLDFNLGFLKNPKRFNVAVT
RAKALLIIVGNPLLLGHDPDWKVFLEFCKENGGYTGCPFFAKLDDLQGGQNLQGLSKLSPSTSGPHSHDY
LPQEREGEGGLSLQVEPEWRNEL

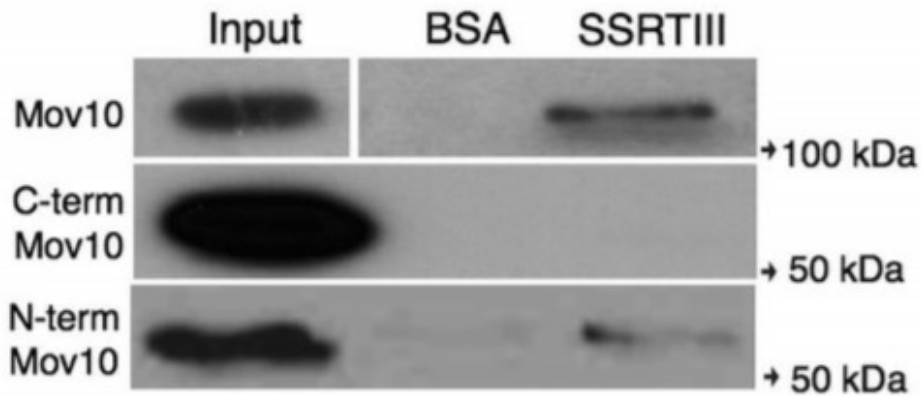
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	113.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



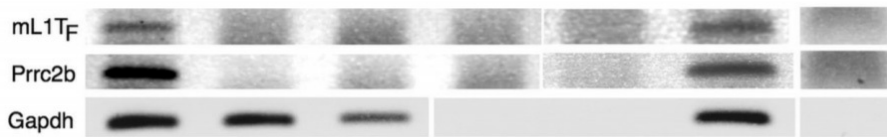
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Bioactivity:	Binding assay (PMID: 28662698) In vitro reverse transcription assay (PMID: 28662698)
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_066014
Locus ID:	4343
UniProt ID:	Q9HCE1
RefSeq Size:	3767
Cytogenetics:	1p13.2
RefSeq ORF:	3009
Synonyms:	fSAP113; gb110
Summary:	5' to 3' RNA helicase contributing to UPF1 mRNA target degradation by translocation along 3' UTRs (PubMed:24726324). Required for microRNA (miRNA)-mediated gene silencing by the RNA-induced silencing complex (RISC). Required for both miRNA-mediated translational repression and miRNA-mediated cleavage of complementary mRNAs by RISC (PubMed:16289642, PubMed:17507929, PubMed:22791714). In cooperation with FMR1, regulates miRNA-mediated translational repression by AGO2 (PubMed:25464849). Restricts retrotransposition of long interspersed element-1 (LINE-1) in cooperation with TUT4 and TUT7 counteracting the RNA chaperone activity of L1RE1 (PubMed:30122351, PubMed:23093941). Facilitates LINE-1 uridylation by TUT4 and TUT7 (PubMed:30122351). Required for embryonic viability and for normal central nervous system development and function. Plays two critical roles in early brain development: suppresses retroelements in the nucleus by directly inhibiting cDNA synthesis, while regulates cytoskeletal mRNAs to influence neurite outgrowth in the cytosol (By similarity). May function as a messenger ribonucleoprotein (mRNP) clearance factor (PubMed:24726324).[UniProtKB/Swiss-Prot Function]

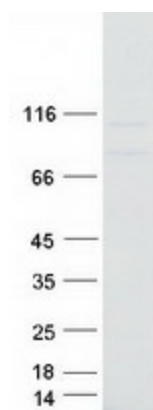
Product images:


Capture assay with wild-type (WT), C-terminal, and N-terminal of Mov10 (OriGene [TP300934]), and SuperScript III reverse transcriptase (SSRTIII) or bovine serum albumin (BSA) covalently coupled to beads indicates the binding of Mov10 N-terminal to SSRTIII. Figure cited from BMC Biol, PMID: 28662698

SSRTIII	1	+	+	+	-	-	+	-
Mov10	1:1	-	-	+	-	-	+	-
Mov10	1:0.3	-	+	-	-	-	-	-
FMRP	1:1	-	-	-	-	-	+	+



Representative gel images of the reverse transcriptase assay set up as shown in the table; SuperScript III reverse transcriptase (SSRTIII) was preincubated with the indicated concentrations of purified Mov10 (OriGene [TP300934]) or human purified recombinant Fmrp as a control, followed by RT-PCR of Prrc2b, L1 (mL1Tf), Gapdh RNAs bound by Mov10 or Fmrp. The addition of Mov10 blocked the reverse transcription of both L1 RNA and Prrc2b RNA; but only partially inhibited the reverse transcription of the Gapdh transcript, which is not bound by Mov10. Figure cited from BMC Biol, PMID: 28662698



Coomassie blue staining of purified MOV10 protein (Cat# [TP300934]). The protein was produced from HEK293T cells transfected with MOV10 cDNA clone (Cat# [RC200934]) using MegaTran 2.0 (Cat# [TT210002]).