

## Product datasheet for **TP300934L**

### 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, 1 mg

**Species:** Human

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >RC200934 protein sequence  
**Red**=Cloning site **Green**=Tags(s)

MPSKFSCRQLREAGQCFESFLVVRGLDMETDRERLRTIYNRDFKISFGTPAPGFSSMLYGMKIANLAYVT  
KTRVRRFRLDRWADVRFPEKRRMKLGSDISKHHKSLAKIFYDRAEYLHGKHGVDVEVQGPHEARDGQLL  
IRLDLNRKEVLTLLRLNNGGTQSVTLTHLPLCRTPQFAFYNEQELPCPLPGECYELHVKCTSFVGYF  
PATVLWELLGPGESGSEGAGTFYIARFLAAVAHSPLAAQLKPMTPFKRTRITGNPVVTNRIEEGERPDRA  
KGYDLELSMALGTYYPPRLRQLPMLLQGTSTAPKEIAEIKAQLETALKWRNYEVKLRLLLHLEELQ  
MEHDIRHYDLESVPMTWDPVDQNPRLTLEVPGVTESRPSVLRGDHLFALLSSETHQEDPITYKGFVHKV  
ELDRVKLSFSMSLLSRFVDGLTFKVNFTFNRQPLRVQHRALELTGRWLLWPMLFPVAPRDVPLLPDVKL  
KLYDRSLESNPEQLQAMRHIVTGTTTPAPYIIFGPPGTGKTVTLVEAIKQVVKHLPKAHILACAPSNSGA  
DLLCQRLRVHLPSSYRLLAPSRDIRMVPEDIKCCNWDAAKKGEYVFPAAKKKLQEYRVLITTLITAGRLV  
SAQFPIDHFTHFIDEAGHCMEPESLVAIAGLMEVKETGDPGGQLVLGADPRQLGPVLRSPLTQKHGLGY  
SLLERLLTNSLYKKGPDGYDPQFITKLLRNYRSHPTILDIPNQLYEGELQACADVDRERFCRWAGLP  
RQGFPIIFHGVMGKDEREGNSPFFNPPEEAATVTSYLKLLAPSSKKGKARLSRPSVGVISPYRKQVEKI  
RYCITKLDRELRLGLDDIKDLKVGSVVEEFQGGQERSVILISTVRSSQSFVQLDLDFNLGFLKNPKRFNVAVT  
RAKALLIIVGNPLLLGHDPDWKVFLEFCKENGGYTGCFFPAKLDLQQGQNLLQGLSKLSPSTSGPHSHDY  
LPQEREGERGGLSLQVEPEWRNEL

**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

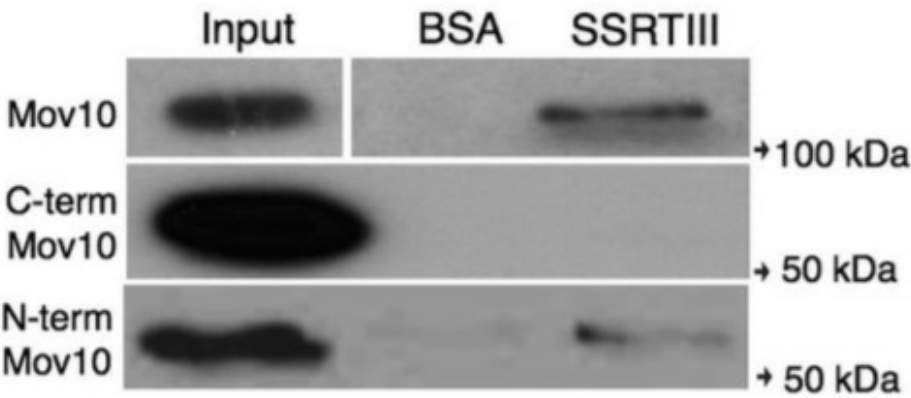
**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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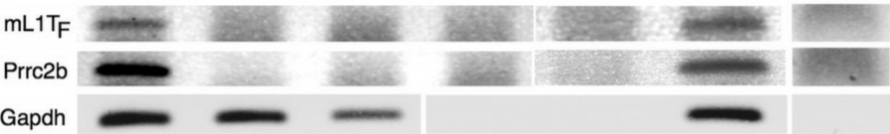
<b>Bioactivity:</b>	Binding assay (PMID: <a href="#">28662698</a> ) In vitro reverse transcription assay (PMID: <a href="#">28662698</a> )
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell 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.
<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>	<a href="#">NP_066014</a>
<b>Locus ID:</b>	4343
<b>UniProt ID:</b>	<a href="#">Q9HCE1</a>
<b>RefSeq Size:</b>	3767
<b>Cytogenetics:</b>	1p13.2
<b>RefSeq ORF:</b>	3009
<b>Synonyms:</b>	fSAP113; gb110
<b>Summary:</b>	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:

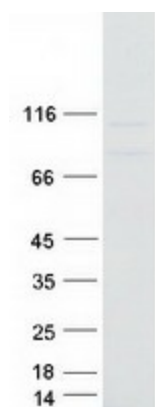


Capture assay with wild-type (WT), C-terminal, and N-terminal of Mov10 (OriGene [TP300934]), and SuperScript III reverse transcriptase (SSRTIII) or bovine serum albumin (BSA) covalently coupled to beads indicates the binding of Mov10 N-terminal to SSRTIII. Figure cited from BMC Biol, PMID: 28662698

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]).