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KD-Validated Anti-Mov10 RNA Helicase Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1614

Product Information

Application	WB, FC, ICC
Primary Accession	Q9HCE1
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB575
Calculated MW	113671
Gene Name	MOV10
Aliases	Mov10 RNA Helicase; Mov10 RISC Complex RNA Helicase; FSAP113; Gb110; Functional Spliceosome-Associated Protein 113; Moloney Leukemia Virus 10 Protein; Armitage Homolog; Helicase MOV-10; MGC2948; Mov10, Moloney Leukemia Virus 10, Homolog (Mouse); Mov10 (Moloney Leukemia Virus 10, Mouse) Homolog; Mov10, Moloney Leukemia Virus 10, Homolog; Putative Helicase MOV-10; EC 3.6.4.13; KIAA1631; EC 3.6.1
Immunogen	A synthesized peptide derived from human Mov10

Additional Information

Gene ID	4343
Other Names	Helicase MOV-10, 3.6.4.13, Armitage homolog, Moloney leukemia virus 10 protein, MOV10 (HGNC:7200), KIAA1631

Protein Information

Name	MOV10 (HGNC:7200)
Synonyms	KIAA1631
Function	5'-3' RNA helicase (PubMed: 24726324). Involved in a number of cellular roles ranging from mRNA metabolism and translation, modulation of viral infectivity, inhibition of retrotransposition, or regulation of synaptic transmission (PubMed:23093941). Plays an important role in innate antiviral immunity by promoting type I interferon production (PubMed:27016603, PubMed:27974568, PubMed:35157734). Mechanistically, specifically uses IKKepsilon/IKBKE as the mediator kinase for IRF3 activation (PubMed:27016603, PubMed:35157734). Blocks HIV-1 virus replication at a post-entry step (PubMed:20215113). Counteracts HIV-1 Vif-mediated degradation of APOBEC3G through its helicase activity by interfering with the ubiquitin-proteasome pathway (PubMed:29258557). Also inhibits hepatitis B

virus/HBV replication by interacting with HBV RNA and thereby inhibiting the early step of viral reverse transcription (PubMed:31722967). Contributes 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 chaperonne activity of L1RE1 (PubMed:23093941, PubMed:30122351). 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).

Cellular Location

Cytoplasm, P-body. Cytoplasm, Cytoplasmic ribonucleoprotein granule. Cytoplasm, Stress granule. Nucleus {ECO:0000250|UniProtKB:P23249} Cytoplasm {ECO:0000250|UniProtKB:P23249}. Note=Co-enriched in cytoplasmic foci with TUT4 (PubMed:30122351). In developing neurons, localizes both in nucleus and cytoplasm, but in the adulthood it is only cytoplasmic (By similarity). After infection, relocalizes to the DENV replication complex in perinuclear regions (PubMed:27974568) {ECO:0000250|UniProtKB:P23249, ECO:0000269|PubMed:27974568, ECO:0000269|PubMed:30122351}

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