

Product datasheet for TP527026

Ago2 (NM_153178) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse argonaute RISC catalytic subunit 2 (Ago2), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR227026 protein sequence Red=Cloning site Green=Tags(s)

MYSGAGPVLASPAPTTSPIPGYAFKPPPRPDFGTTGRTIKLQANFFEMDIPKIDIHYELDIKPEKCPRR
VNREIVEHMQHFQKQIFGDRKPVFDGRKNLYTAMPLPIGRDKVELEVTLPGEGKDRIFKVSIKWVSCVS
LQALHDALSGRLSPVPFETIQALDVMRHLPSMRYTPVGRSFFTASEGCSNPLGGGREVWFGFHQSVRPS
LWKMMLNIDVSATAFYKAQPVIEFVCEVLDFKSIEEQKPLTDSQRVKFTKEIKGLKVEITHCGQMKRKY
RVCNVTRRPASHQTFPLQQESGQTVECTVAQYFKDRHKLVLRYPHLPCLQVQEQKHTYLPLEVCNIVAG
QRCIKKLTDNQTSTMIRATARSAPDRQEEISKLMRSASFNTDPYVREFGIMVKDEM TDVTGRVLQPPSIL
YGGRNKAIATPVQGVWDMRNKQFHTGIEIKVWAIACFAPQRQCTEVHLKSFTQLRKISR DAGMPIQGQP
CFCKYAQGADSVPEMFRHLKNTYAGLQLVWVILPGKTPVYAEVKRVGDTVLGMATQCVQMKNVQRTPPT
LSNLCLKINVKLGGVNNILLPQGRPPVFQQPVIFLGADVTHPPAGDGKKPSIAAVVGSMDAHPNRYCATV
RVQQHRQEIIQDLAAMVRELLIQFYKSTRFKPTRIIFYRDGVSEGQFQQVLHHELLAIREACIKLEKDYQ
PGITFIVVQKRHHTRLFCTDKNERVKGSGNIPAGTTVDTKITHPTDFYLCSHAGIQGTSRPSHYHVLW
DDNRFSSDELQILTYQLCHTYVRCTRSVSIPAPAYYAHLVAFRARYHLVDKEHDSAEGSHTSGQSNGRDH
QALAKAVQVHQDTLRTMYFA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	97.3 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
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.



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Storage:	Store at -80°C after receiving vials.
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_694818
Locus ID:	239528
UniProt ID:	Q8CJG0 , Q3UQ34
RefSeq Size:	8031
Cytogenetics:	15 D3
RefSeq ORF:	2583
Synonyms:	1110029L17Rik; 2310051F07Rik; AI225898; AL022874; AW546247; Eif2c2; ENSMUSG00000072493; Gerp95
Summary:	<p>Required for RNA-mediated gene silencing (RNAi) by the RNA-induced silencing complex (RISC). The 'minimal RISC' appears to include AGO2 bound to a short guide RNA such as a microRNA (miRNA) or short interfering RNA (siRNA). These guide RNAs direct RISC to complementary mRNAs that are targets for RISC-mediated gene silencing. The precise mechanism of gene silencing depends on the degree of complementarity between the miRNA or siRNA and its target. Binding of RISC to a perfectly complementary mRNA generally results in silencing due to endonucleolytic cleavage of the mRNA specifically by AGO2. Binding of RISC to a partially complementary mRNA results in silencing through inhibition of translation, and this is independent of endonuclease activity. May inhibit translation initiation by binding to the 7-methylguanosine cap, thereby preventing the recruitment of the translation initiation factor eIF4-E. May also inhibit translation initiation via interaction with EIF6, which itself binds to the 60S ribosomal subunit and prevents its association with the 40S ribosomal subunit. The inhibition of translational initiation leads to the accumulation of the affected mRNA in cytoplasmic processing bodies (P-bodies), where mRNA degradation may subsequently occur. In some cases RISC-mediated translational repression is also observed for miRNAs that perfectly match the 3' untranslated region (3' UTR). Can also up-regulate the translation of specific mRNAs under certain growth conditions. Binds to the AU element of the 3' UTR of the TNF (TNF-alpha) mRNA and up-regulates translation under conditions of serum starvation. Also required for transcriptional gene silencing (TGS), in which short RNAs known as antigenic RNAs or agRNAs direct the transcriptional repression of complementary promoter regions. Regulates lymphoid and erythroid development and function, and this is independent of endonuclease activity.[UniProtKB/Swiss-Prot Function]</p>