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EIF2C2 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant EIF2C2.
Catalog # AT1874a

Specification

EIF2C2 Antibody (monoclonal) (M01) - Product Information

Application	**IF, WB, IHC, E**
Primary Accession	Q9UKV8
Other Accession	BC007633.1
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1 Kappa**
Calculated MW	**97208**

EIF2C2 Antibody (monoclonal) (M01) - Additional Information

Gene ID 27161

Other Names
Protein argonaute-2 {ECO:0000255|HAMAP-Rule:MF_03031}, Argonaute2 {ECO:0000255|HAMAP-Rule:MF_03031}, hAgo2, 3126n2 {ECO:0000255|HAMAP-Rule:MF_03031}, Argonaute RISC catalytic component 2, Eukaryotic translation initiation factor 2C 2 {ECO:0000255|HAMAP-Rule:MF_03031}, eIF-2C 2 {ECO:0000255|HAMAP-Rule:MF_03031}, eIF2C 2 {ECO:0000255|HAMAP-Rule:MF_03031}, PAZ Piwi domain protein, PPD, Protein slicer {ECO:0000255|HAMAP-Rule:MF_03031}, AGO2, EIF2C2

Target/Specificity
EIF2C2 (AAH07633.1, 1 a.a. ~ 377 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

Dilution
WB~~1:500~1000

Format
Clear, colorless solution in phosphate buffered saline, pH 7.2 .

Storage
Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions
EIF2C2 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

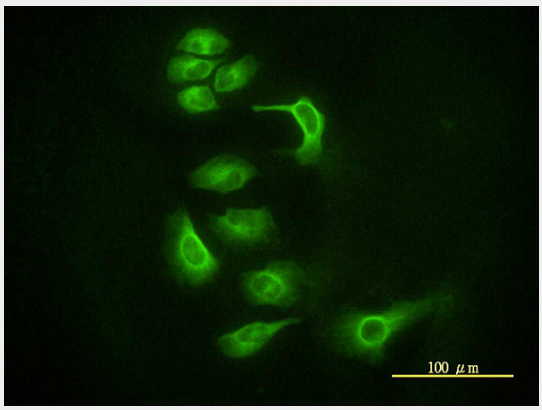
EIF2C2 Antibody (monoclonal) (M01) - Protocols

Provided below are standard protocols that you may find useful for product applications.

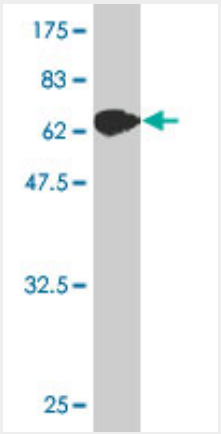
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- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

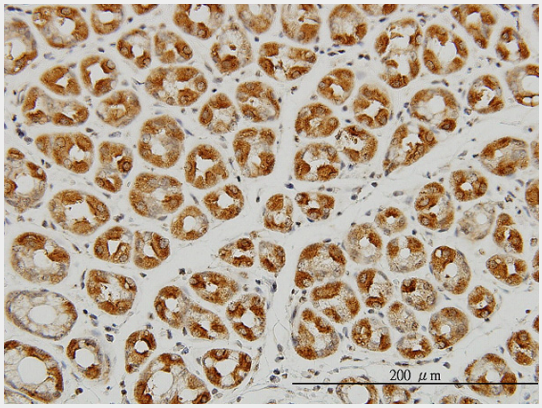
EIF2C2 Antibody (monoclonal) (M01) - Images



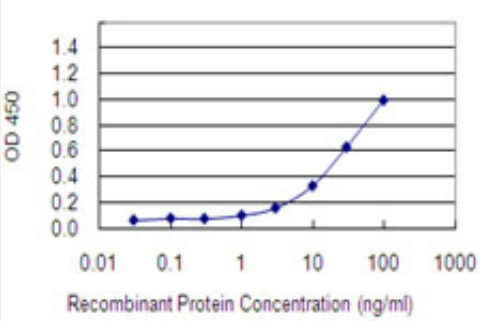
Immunofluorescence of monoclonal antibody to EIF2C2 on HeLa cell. [antibody concentration 10 ug/ml]



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (68.03 KDa) .



Immunoperoxidase of monoclonal antibody to EIF2C2 on formalin-fixed paraffin-embedded human stomach. [antibody concentration 3 ug/ml]



Detection limit for recombinant GST tagged EIF2C2 is 0.3 ng/ml as a capture antibody.

EIF2C2 Antibody (monoclonal) (M01) - Background

This gene encodes a member of the Argonaute family of proteins which play a role in RNA interference. The encoded protein is highly basic, and contains a PAZ domain and a PIWI domain. It may interact with dicer1 and play a role in short-interfering-RNA-mediated gene silencing. Multiple transcript variants encoding different isoforms have been found for this gene.

EIF2C2 Antibody (monoclonal) (M01) - References

1.Characterisation and Comparison of Lactating Mouse and Bovine Mammary Gland miRNomes.Le Guillou S, Marthey S, Laloe D, Laubier J, Mobuchon L, Leroux C, Le Provost FPLoS One. 2014 Mar 21;9(3):e91938. doi: 10.1371/journal.pone.0091938. eCollection 2014.2.NMDA receptor-dependent regulation of miRNA expression and association with Argonaute during LTP in vivo.Pai B, Siripornmongcolchai T, Berentsen B, Pakzad A, Vieuille C, Pallesen S, Pajak M, Simpson TI, Armstrong JD, Wibrand K, Bramham CRFront Cell Neurosci. 2014 Jan 13;7:285. doi: 10.3389/fncel.2013.00285. eCollection 2014 Jan 13.3.MicroRNA-23 inhibits PRRSV replication by directly targeting PRRSV RNA and possibly by upregulating type I interferons.Zhang Q, Guo XK, Gao L, Huang C, Li N, Jia X, Liue W, Feng WH.Virology 450-451 (2014) 182–1954.Comprehensive Analysis of MicroRNA (miRNA) Targets in Breast Cancer Cells.Fan M, Krutilina R, Sun J, Sethuraman A, Yang CH, Wu ZH, Yue J, Pfeffer LMJ Biol Chem. 2013 Sep 20;288(38):27480-93. doi: 10.1074/jbc.M113.491803. Epub 2013 Aug 6.5.Identification of axon-enriched microRNAs localized in growth cones of cortical neurons.Sasaki Y, Gross C, Xing L, Goshima Y, Bassell GJDev Neurobiol. 2013 Jul 29. doi: 10.1002/dneu.22113.6.Remodeling of Ago2-mRNA interactions upon cellular stress reflects miRNA complementarity and correlates with altered translation rates.Karginov FV, Hannon GJGenes Dev. 2013 Jul 3.7.Negative regulation of Toll-like receptor 4 signaling by IL-10-dependent microRNA-146b.Curtale G, Mirolo M, Renzi TA, Rossato M, Bazzoni F, Locati MProc Natl Acad Sci U S A. 2013 Jul 9;110(28):11499-504. doi: 10.1073/pnas.1219852110. Epub 2013 Jun 24.8.Single modification at position 14 of siRNA strand abolishes its gene-silencing activity by decreasing both RISC loading and target degradation.Zheng J, Zhang L, Zhang J, Wang X, Ye K, Xi Z, Du Q, Liang ZFASEB J. 2013 Jun 14.9.Activated platelets can deliver mRNA regulatory Ago2{middle dot}microRNA complexes to endothelial cells via microparticles.Laffont B, Corduan A, Ple H, Duchez AC, Cloutier N, Boilard E, Provost PBlood. 2013 May 7.10.The microRNA-342-5p Fosters Inflammatory Macrophage Activation Through an Akt1- and microRNA-155-Dependent Pathway During Atherosclerosis.Wei Y, Nazari-Jahantigh M, Chan L, Zhu M, Heyll K, Corbalan-Campos J, Hartmann P, Thiemann A, Weber C, Schober ACirculation. 2013 Apr 16;127(15):1609-19. doi: 10.1161/CIRCULATIONAHA.112.000736. Epub 2013 Mar 19.11.Loss of miR-125b-1 contributes to head and neck cancer development by dysregulating TACSTD2 and MAPK pathway.Nakanishi H, Taccioli C, Palatini J, Fernandez-Cymering C, Cui R, Kim T, Volinia S, Croce CMOncogene. 2013 Feb 18. doi: 10.1038/onc.2013.13.12.Additional expression of microRNA-181 inhibits Porcine Reproductive and Respiratory Syndrome Virus replication and its implications for controlling virus

infection.Guo XK, Zhang Q, Gao L, Li N, Chen XX, Feng WH.J Virol. 2012 Nov 14.13.Direct Conversion of Fibroblasts to Neurons by Reprogramming PTB-Regulated MicroRNA Circuits.Xue Y, Ouyang K, Huang J, Zhou Y, Ouyang H, Li H, Wang G, Wu Q, Wei C, Bi Y, Jiang L, Cai Z, Sun H, Zhang K, Zhang Y, Chen J, Fu XD.Cell. 2013 Jan 9. pii: S0092-8674(12)01433-X. doi: 10.1016/j.cell.2012.11.045.14.siRNA Has Greatly Elevated Mismatch Tolerance at 3'-UTR Sites.Wei N, Zhang L, Huang H, Chen Y, Zheng J, Zhou X, Yi F, Du Q, Liang Z.PLoS One. 2012;7(11):e49309. doi: 10.1371/journal.pone.0049309. Epub 2012 Nov 8.15.The mammalian TRIM-NHL protein TRIM71/LIN-41 is a repressor of mRNA function.Loedige I, Gaidatzis D, Sack R, Meister G, Filipowicz W.Nucleic Acids Res. 2012 Nov 3. [Epub ahead of print]16.MicroRNA-155 promotes atherosclerosis by repressing Bcl6 in macrophages.Nazari-Jahantigh M, Wei Y, Noels H, Akhtar S, Zhou Z, Koenen RR, Heyll K, Gremse F, Kiessling F, Grommes J, Weber C, Schober A.J Clin Invest. 2012 Nov 1;122(11):4190-202. doi: 10.1172/JCI61716. Epub 2012 Oct 8.17.The p38/MK2-Driven Exchange between Tristetraprolin and HuR Regulates AU-Rich Element-Dependent Translation.Tiedje C, Ronkina N, Tehrani M, Dhamija S, Laass K, Holtmann H, Kotlyarov A, Gaestel M.PLoS Genet. 2012 Sep;8(9):e1002977. doi: 10.1371/journal.pgen.1002977. Epub 2012 Sep 27.18.HIV-1 Gag co-opts a cellular complex containing DDX6, a helicase that facilitates capsid assembly.Reed JC, Molter B, Geary CD, McNevin J, McElrath J, Giri S, Klein KC, Lingappa JR.J Cell Biol. 2012 Aug 6;198(3):439-56. Epub 2012 Jul 30.19.Generation of miRNA sponge constructs.Kluiver J, Slezak-Prochazka I, Smigielska-Czepiel K, Halsema N, Kroesen BJ, van den Berg A.Methods. 2012 Jul 23.20.MicroRNAs Regulate p21(Waf1/cip1) Protein Expression and the DNA Damage Response in Human Embryonic Stem Cells.Dolezalova D, Mraz M, Barta T, Plevova K, Vinarsky V, Holubcova Z, Jaros J, Dvorak P, Pospisilova S, Hampl A.Stem Cells. 2012 Apr 17. doi: 10.1002/stem.1108.21.A Pathogenic Mechanism in Huntington's Disease Involves Small CAG-Repeated RNAs with Neurotoxic Activity.Banez-Coronel M, Porta S, Kagerbauer B, Mateu-Huertas E, Pantano L, Ferrer I, Guzman M, Estivill X, Marti E.PLoS Genet. 2012 Feb;8(2):e1002481. Epub 2012 Feb 23.22.Regulation of Cyclin T1 and HIV-1 Replication by MicroRNAs in Resting CD4+ T Lymphocytes.Chiang K, Sung TL, Rice AP.J Virol. 2012 Mar;86(6):3244-52. Epub 2011 Dec 28.23.Regulation of human chondrocyte function through direct inhibition of cartilage master-regulator SOX9 by miRNA-145.Martinez-Sanchez A, Dudek KA, Murphy CL.J Biol Chem. 2011 Nov 18.24.Fragile X Related Protein 1 Clusters with Ribosomes and Messenger RNAs at a Subset of Dendritic Spines in the Mouse Hippocampus.Cook D, Del Rayo Sanchez-Carbente M, Lachance C, Radzioch D, Tremblay S, Khandjian EW, Desgroseillers L, Murai KK.PLoS One. 2011;6(10):e26120. Epub 2011 Oct 11.25.Characterization of extracellular circulating microRNA.Turchinovich A, Weiz L, Langheinz A, Burwinkel B.Nucleic Acids Res. 2011 May 24. [Epub ahead of print]26.Limiting Ago protein restricts RNAi and microRNA biogenesis during early development in Xenopus laevis.Lund E, Sheets MD, Imboden SB, Dahlberg JE.Genes Dev. 2011 Jun 1;25(11):1121-31. Epub 2011 May 16.27.HuR-dependent loading of miRNA RISC to the mRNA encoding the Ras-related small GTPase RhoB controls its translation during UV-induced apoptosis.Glorian V, Maillot G, Poles S, Iacovoni JS, Favre G, Vagner S.Cell Death Differ. 2011 Apr 29. [Epub ahead of print]28.Viral RNAi Suppressor Reversibly Binds siRNA to Outcompete Dicer and RISC via Multiple Turnover.Rawlings RA, Krishnan V, Walter NG.J Mol Biol. 2011 Feb 24. [Epub ahead of print]29.The QKI-6 RNA Binding Protein Localizes with the MBP mRNAs in Stress Granules of Glial Cells.Wang Y, Lacroix G, Haines J, Doukhanine E, Almazan G, Richard S.PLoS One. 2010 Sep 17;5(9). pii: e12824.30.A dicer-independent miRNA biogenesis pathway that requires Ago catalysis.Cheloufi S, Dos Santos CO, Chong MM, Hannon GJ.Nature. 2010 Jun 3;465(7298):584-9.31.P-Body Loss Is Concomitant with Formation of a Messenger RNA Storage Domain in Mouse Oocytes.Flemr M, Ma J, Schultz RM, Svoboda P.Biol Reprod. 2010 May;82(5):1008-17. Epub 2010 Jan 14.32.RNA binding motif protein 4 translocates to cytoplasmic granules and suppresses translation via Argonaute2 during muscle cell differentiation.Lin JC, Tarn WY.J Biol Chem. 2009 Dec 11;284(50):34658-65. Epub 2009 Sep 29.33.A high throughput experimental approach to identify miRNA targets in human cells.Tan LP, Seinen E, Duns G, de Jong D, Sibon OC, Poppema S, Kroesen BJ, Kok K, van den Berg A.Nucleic Acids Res. 2009 Sep 4. [Epub ahead of print]34.Existence of a microRNA pathway in anucleate platelets.Landry P, Plante I, Ouellet DL, Perron MP, Rousseau G, Provost P.Nat Struct Mol Biol. 2009 Sep;16(9):961-6. Epub 2009 Aug 9.35.Dynamic Interaction between P-Bodies and Transport Ribonucleoprotein Particles in Dendrites of Mature Hippocampal Neurons.Zeitelhofer M, Karra D,

Macchi P, Tolino M, Thomas S, Schwarz M, Kiebler M, Dahm R.J Neurosci. 2008 Jul 23;28(30):7555-62.36.Argonaute2 Is Essential for Mammalian Gastrulation and Proper Mesoderm Formation.Alisch RS, Jin P, Epstein M, Caspary T, Warren ST.PLoS Genet. 2007 Dec 28;3(12):e227.37.Reduced levels of Ago2 expression result in increased siRNA competition in mammalian cells.Vickers TA, Lima WF, Nichols JG, Crooke ST.Nucleic Acids Res. 2007;35(19):6598-610. Epub 2007 Sep 28.38.Ribonuclease Dicer Cleaves Triplet Repeat Hairpins into Shorter Repeats that Silence Specific Targets.Krol J, Fiszer A, Mykowska A, Sobczak K, de Mezer M, Krzyzosiak WJ.Mol Cell. 2007 Feb 23;25(4):575-86.