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EIF2A Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1898a

Specification

EIF2A Antibody - Product Information

Application	**E, WB, FC, IHC**
Primary Accession	Q9BY44
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**65kDa KDa**

Description
EIF2A is a 65-kD protein that catalyzes the formation of puromycin-sensitive 80S preinitiation complexes.

Immunogen
Purified recombinant fragment of human EIF2A (AA: 448-576) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide.

EIF2A Antibody - Additional Information

Gene ID 83939

Other Names
Eukaryotic translation initiation factor 2A, eIF-2A, 65 kDa eukaryotic translation initiation factor 2A, Eukaryotic translation initiation factor 2A, N-terminally processed, EIF2A

Dilution
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
EIF2A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

EIF2A Antibody - Protein Information

Name EIF2A

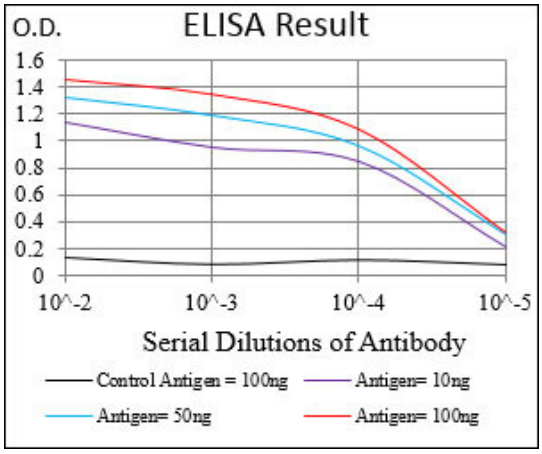
Function
Functions in the early steps of protein synthesis of a small number of specific mRNAs. Acts by directing the binding of methionyl- tRNAi to 40S ribosomal subunits. In contrast to the eIF-2 complex, it binds methionyl-tRNAi to 40S subunits in a codon-dependent manner, whereas the eIF-2 complex binds methionyl-tRNAi to 40S subunits in a GTP-dependent manner.

Tissue Location
Widely expressed. Expressed at higher level in pancreas, heart, brain and placenta.

EIF2A Antibody - Protocols

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

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



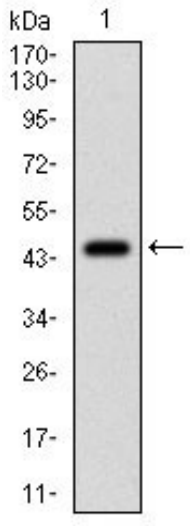


Figure 1: Western blot analysis using EIF2A mAb against human EIF2A (AA: 448-576) recombinant

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protein. (Expected MW is 40.3 kDa)

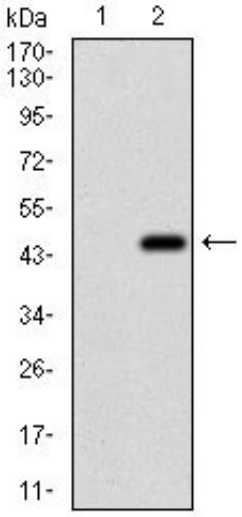

Figure 2: Western blot analysis using EIF2A mAb against HEK293 (1) and EIF2A (AA: 448-576)-hIgGFc transfected HEK293 (2) cell lysate.

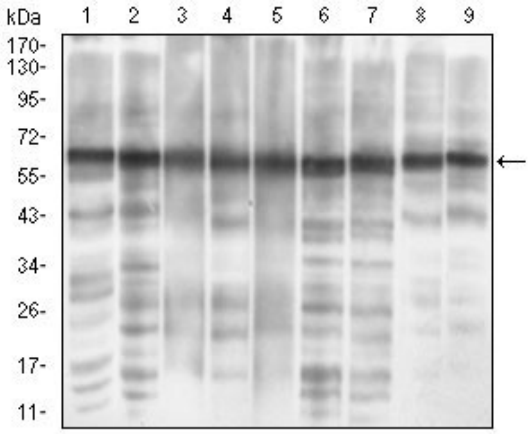

Figure 3: Western blot analysis using EIF2A mouse mAb against MCF-7 (1), PC-12 (2), HepG2 (3), Hela (4), Cos7 (5), K562 (6), Jurkat (7), A431 (8) and NIH/3T3 (9) cell lysate.

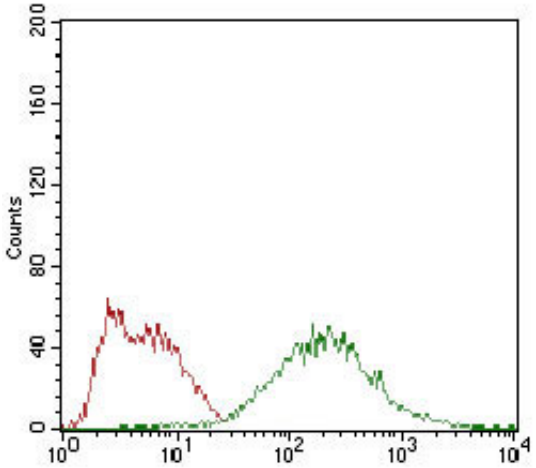

Figure 4: Flow cytometric analysis of HepG2 cells using EIF2A mouse mAb (green) and negative control (red).

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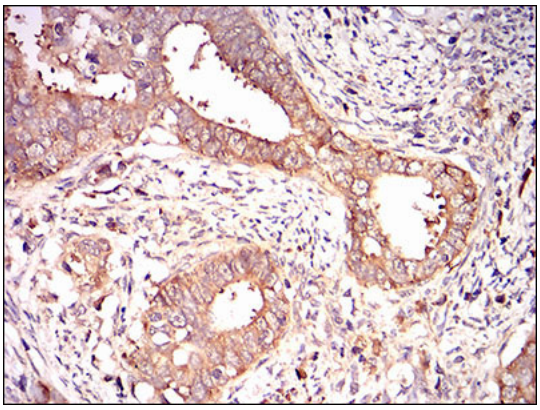

Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using EIF2A mouse mAb with DAB staining.

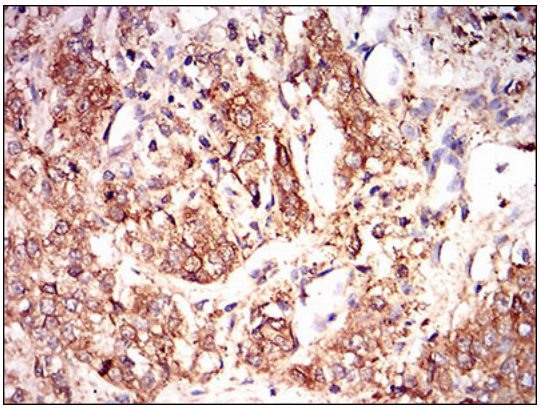

Figure 6: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using EIF2A mouse mAb with DAB staining.

EIF2A Antibody - Background

The protein encoded by this gene is a regulatory subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. This subunit is one of the gamma regulatory subunits of AMPK. Alternatively spliced transcript variants encoding distinct isoforms have been observed. ;

EIF2A Antibody - References

1. Mol Biol (Mosk). 2010 Sep-Oct;44(5):859-66. 2. Cancer Res. 2009 Feb 15;69(4):1545-52.