

elF2a mouse mAb

Catalog No: YM1444

Reactivity: Human; Mouse; Rat

Applications: WB;IF;IP

Target: elF2a

Fields: >>Autophagy - animal;>>Protein processing in endoplasmic

reticulum;>>Apoptosis;>>Non-alcoholic fatty liver disease;>>Alzheimer disease;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Hepatitis C;>>Measles;>>Influenza A;>>Herpes simplex virus 1 infection;>>Lipid and

atherosclerosis

P05198

Q6ZWX6

Gene Name: eif2s1

Human Gene Id: 1965

Human Swiss Prot

No:

Mouse Swiss Prot

No:

Immunogen: Purified recombinant human eIF2a protein fragments expressed in E.coli.

Specificity: This antibody detects endogenous levels of eIF2a and does not cross-react with

related proteins.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Monoclonal, Mouse

Dilution: wb dilution 1:1000 icc dilution 1:200. IF 1:50-200

Purification: The antibody was affinity-purified from mouse ascites by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

1/3

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 38kD

Background : The translation initiation factor EIF2 catalyzes the first regulated step of protein

synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. Binding occurs as a ternary complex of methionyl-tRNA, EIF2, and GTP. EIF2 is composed of 3 nonidentical subunits, the 36-kD EIF2-alpha subunit (EIF2S1), the 38-kD EIF2-beta subunit (EIF2S2; MIM 603908), and the 52-kD EIF2-gamma subunit (EIF2S3; MIM 300161). The rate of formation of the ternary complex is modulated by the phosphorylation state of EIF2-alpha (Ernst et al.,

1987 [PubMed 2948954]).[supplied by OMIM, Feb 2010],

Function: function: Functions in the early steps of protein synthesis by forming a ternary

complex with GTP and initiator tRNA. This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S preinitiation complex. Junction of the 60S ribosomal subunit to form the 80S initiation complex is preceded by hydrolysis of the GTP bound to eIF-2 and release of an eIF-2-GDP binary

complex. In order for eIF-2 to recycle and catalyze another round of initiation, the GDP bound to eIF-2 must exchange with GTP by way of a reaction catalyzed by eIF-2B.,PTM:Substrate for at least 4 kinases: EIF2AK3/PERK, GCN2, HRI and PKR. Phosphorylation stabilizes the eIF-2/GDP/eIF-2B complex and prevents GDP/GTP exchange reaction, thus impairing the recycling of eIF-2 between successive rounds of initiation and leading to global inhibition of translation. In

case of infection by vaccinia virus or rotavirus

Subcellular Location:

Cytoplasm, Stress granule . Colocalizes with NANOS3 in the stress granules. .

Expression: B cells, Brain, Fibroblast, Placenta,

Tag: ip

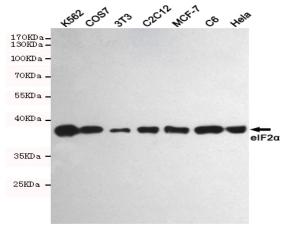
Sort: 5466

No4: 1

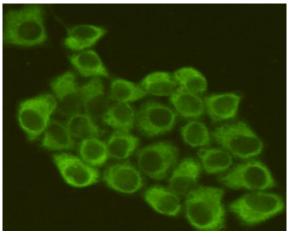
Host: Mouse

Modifications: Unmodified

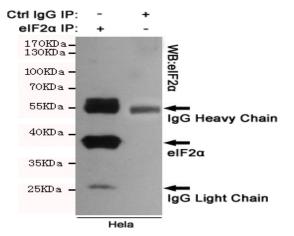
Products Images



Western blot detection of eIF2 α in K562,COS7,3T3, C2C12,MCF-7,C6 and Hela cell lysates using eIF2 α mouse mAb (1:1000 diluted).Predicted band size:38KDa.Observed band size:38KDa.



Immunofluorescent analysis of Hela cells fixed by anhydrous methanol for 2 h at -20°C and using anti-eIF2a mouse mAb (dilution 1:200).



Immunoprecipitation analysis of Hela cell lysates using eIF2a.