

eIF2 α mouse mAb

Catalog No :	YM1444
Reactivity :	Human;Mouse;Rat
Applications :	WB;IF;IP
Target :	eIF2 α
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
Gene Name :	eif2s1
Human Gene Id :	1965
Human Swiss Prot No :	P05198
Mouse Swiss Prot No :	Q6ZWX6
Immunogen :	Purified recombinant human eIF2 α protein fragments expressed in E.coli.
Specificity :	This antibody detects endogenous levels of eIF2 α 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

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],

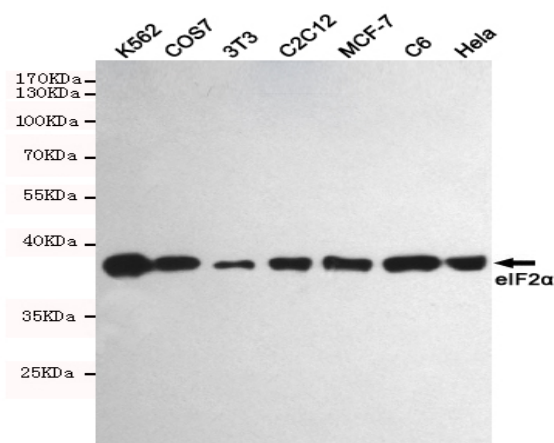
Function : function:Functions in the early steps of protein synthesis by forming a ternary complex with GTP and initiator tRNA. This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S preinitiation complex. Junction of the 60S ribosomal subunit to form the 80S initiation 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. .

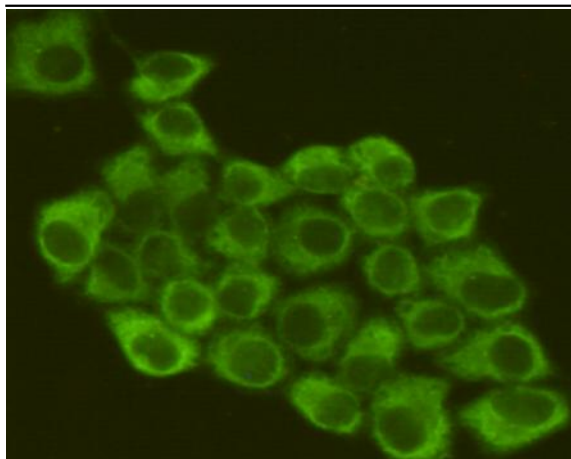
Location :

Expression : B cells,Brain,Fibroblast,Placenta,

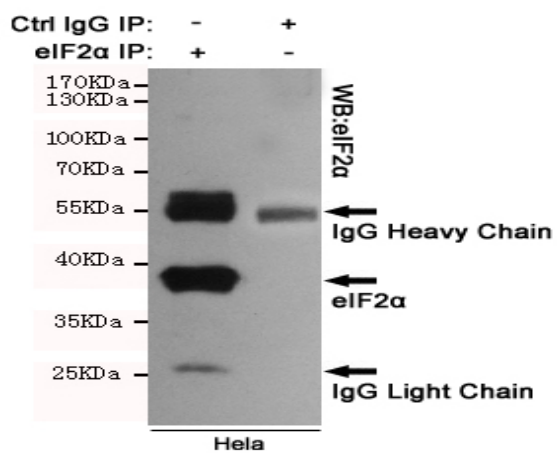
Products Images



Western blot detection of eIF2α in K562,COS7,3T3, C2C12,MCF-7,C6 and HeLa cell lysates using eIF2α 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-eIF2α mouse mAb (dilution 1:200).



Immunoprecipitation analysis of HeLa cell lysates using eIF2α.