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EIF2S1
Mouse Anti-Human EIF2S1/EIF-2 alpha Clone EIF2α mAb

Catalog No.	CSI14249	**Quantity:**	100 µg

Alternate Names: EIF-2, EIF-2A, EIF-2alpha, EIF2, EIF2A, eIF-2-alpha, eukaryotic translation initiation factor 2, subunit 1 (alpha, 35kD)

Description: eIF2ALPHA (EIF2a) MS X; Unconjugated Monoclonal antibody specific to Human, Mouse, Rat eIF2a. This antibody is validated for use in Western Blot. Anti-eIF2a recognizes the expressed product of the EIF2S1 gene.

Gene ID: 1965

Specificity: This antibody recognizes the α subunit of eukaryotic translation initiation factor 2 (eIF -2α). It is a 36 kDa protein and is ubiquitously expressed in many cell types. The eIF-2 protein, which is composed of three subunits (α, β and γ), is one of the key molecules in the initiation of translation. The phosphorylation of eIF-2α is an important regulatory process in protein synthesis. In mammalian cells, eIF-2α is phosphorylated at serine 51 by at least two kinases: the haem-controlled repressor (HCR) and the interferon inducible double stranded RNA-dependent protein kinase (PKR). Phosphorylation of eIF-2α blocks the GDP-GTP exchange activity of eIF-2β, resulting in the suppression of protein synthesis.

Quantity/Volume: 0.1 mg/0.2 mL

Immunogen: Recombinant human eIF-2α.

Isotype: IgG1 (mouse)

Clone: EIF2α

Formulation: Purified immunoglobulin in phosphate buffered saline, pH 7.4 and 0.1% sodium azide. Precaution: Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.

Purification: Purified from ascites by Protein A/G chromatography

Cross-Reactivity: Human, mouse and rat. Other species were not tested.

Applications: This antibody is suitable for Western blotting. Other applications have not been tested.

Application Notes: For Western blotting, use 1:500-1:1000 dilution. The optimal antibody concentration should be determined for each specific application.

Storage & Stability:

Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

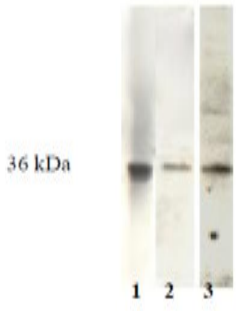
Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com

Store at 2-8ºC. For long term storage, aliquot into small volumes and store at –20ºC. Avoid repeated freeze-thaw cycles to avoid denaturing the antibody.

Positive Control Used: Human Jurkat, CEM and HeLa cells, mouse 3T3L1 and rat PC-12 cells.

Cell extracts prepared from human CEM (lane 1), HeLa (lane 2) and rat PC-12 cells (lane 3) were resolved by SDS PAGE on a 4-20% Tris-glycine gel. The proteins were then ransferred to PVDF membrane. Membranes were incubated with 1 µg/mL anti-eIF-2α antibody for 1 hour. After washing, membranes were incubated with goat F(ab')2 anti-mouse IgG alkaline phosphatase and bands were detected using the Tropix WesternStar™ detection method.
The data show that the anti-eIF-2a antibody recognizes a 36 kDa band in the cell extracts.



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