

Mouse Monoclonal Antibody to EIF5
Purified Mouse Monoclonal Antibody
Catalog # AO2387a**Specification**

Mouse Monoclonal Antibody to EIF5 - Product Information

Application	WB, E
Primary Accession	P55010
Reactivity	Human, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2a
Calculated MW	49.2kDa KDa

Description

Eukaryotic translation initiation factor-5 (EIF5) interacts with the 40S initiation complex to promote hydrolysis of bound GTP with concomitant joining of the 60S ribosomal subunit to the 40S initiation complex. The resulting functional 80S ribosomal initiation complex is then active in peptidyl transfer and chain elongations (summary by Si et al., 1996 [PubMed 8663286]).;

Immunogen

Purified recombinant fragment of human EIF5 (AA: 1-300) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

Application Note

ELISA: 1/10000; WB: 1/500 - 1/2000;

Mouse Monoclonal Antibody to EIF5 - Additional Information

Gene ID 1983

Other Names

EIF-5; EIF-5A

Dilution

WB~~1:1000

E~~N/A

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

Mouse Monoclonal Antibody to EIF5 is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Monoclonal Antibody to EIF5 - Protein Information

Name EIF5**Function**

Component of the 43S pre-initiation complex (43S PIC), which binds to the mRNA cap-proximal region, scans mRNA 5'-untranslated region, and locates the initiation codon (PubMed:11166181, PubMed:22813744, PubMed:24319994). In this complex, acts as a GTPase- activating protein, by promoting GTP hydrolysis by eIF2G (EIF2S3) (PubMed:11166181). During scanning, interacts with both EIF1 (via its C-terminal domain (CTD)) and EIF1A (via its NTD) (PubMed:22813744). This interaction with EIF1A contributes to the maintenance of EIF1 within the open 43S PIC (PubMed:24319994). When start codon is recognized, EIF5, via its NTD, induces eIF2G (EIF2S3) to hydrolyze the GTP (PubMed:11166181). Start codon recognition also induces a conformational change of the PIC to a closed state (PubMed:22813744). This change increases the affinity of EIF5-CTD for EIF2-beta (EIF2S2), which allows the release, by an indirect mechanism, of EIF1 from the PIC (PubMed:22813744). Finally, EIF5 stabilizes the PIC in its closed conformation (PubMed:22813744).

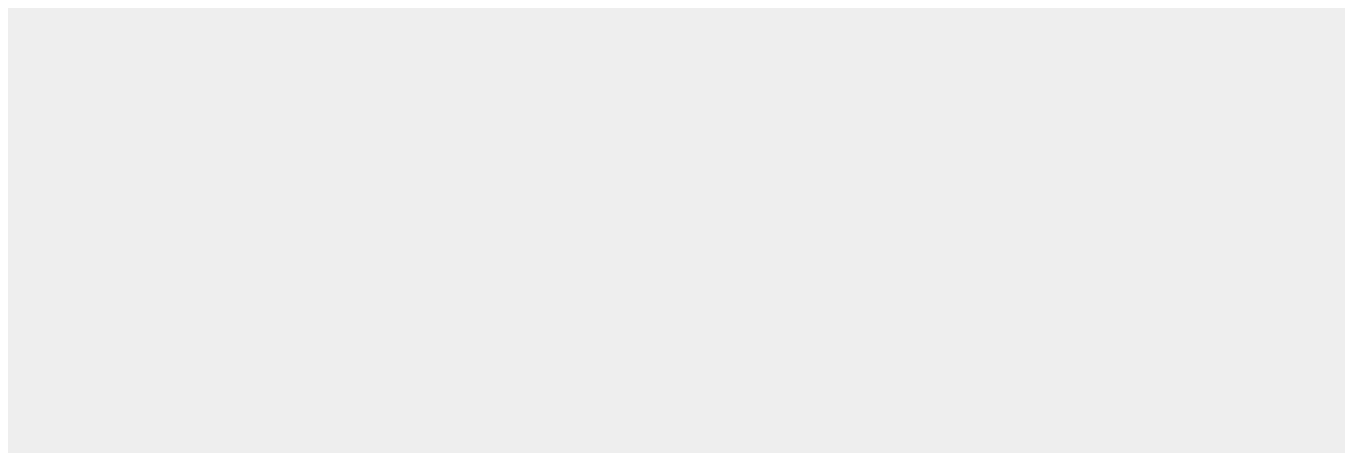
Cellular Location

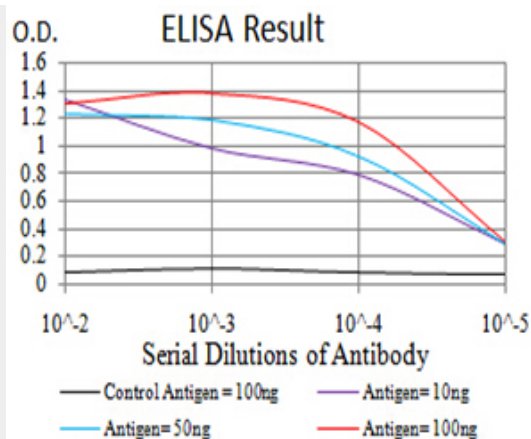
Cytoplasm.

Mouse Monoclonal Antibody to EIF5 - Protocols

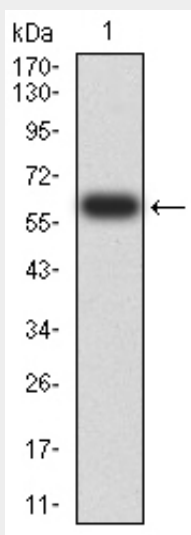
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

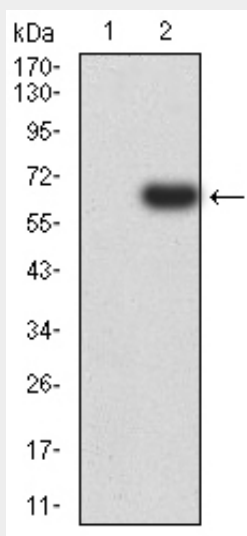
Mouse Monoclonal Antibody to EIF5 - Images



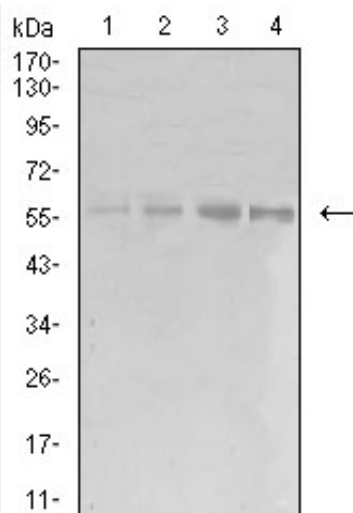
Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)



Western blot analysis using EIF5 mAb against human EIF5 (AA: 1-300) recombinant protein. (Expected MW is 60.2 kDa)



Western blot analysis using EIF5 mAb against HEK293 (1) and EIF5 (AA: 1-300)-hlgGfC transfected HEK293 (2) cell lysate.



Western blot analysis using EIF5 mouse mAb against K562 (1), COS7 (2), HeLa (3), and A431 (4) cell lysate.

Mouse Monoclonal Antibody to EIF5 - References

1. Biochemistry. 2006 Apr 11;45(14):4550-8. ; 2. Biochem Biophys Res Commun. 2011 Dec 2;415(4):567-72.;