

## EIF3D Antibody (aa101-150)

Rabbit Polyclonal Antibody Catalog # ALS14212

# **Specification**

# EIF3D Antibody (aa101-150) - Product Information

Application WB
Primary Accession O15371
Reactivity Human, Mouse
Host Rabbit

Clonality Polyclonal
Calculated MW 64kDa KDa

# EIF3D Antibody (aa101-150) - Additional Information

#### **Gene ID 8664**

### **Other Names**

Eukaryotic translation initiation factor 3 subunit D {ECO:0000255|HAMAP-Rule:MF\_03003}, eIF3d {ECO:0000255|HAMAP-Rule:MF\_03003}, Eukaryotic translation initiation factor 3 subunit 7 {ECO:0000255|HAMAP-Rule:MF\_03003}, eIF-3-zeta {ECO:0000255|HAMAP-Rule:MF\_03003}, eIF3p {ECO:0000255|HAMAP-Rule:MF\_03003}

### Target/Specificity

EIF3D Antibody detects endogenous levels of total EIF3D protein.

## **Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

#### **Precautions**

EIF3D Antibody (aa101-150) is for research use only and not for use in diagnostic or therapeutic procedures.

# EIF3D Antibody (aa101-150) - Protein Information

Name EIF3D {ECO:0000255|HAMAP-Rule:MF 03003}

## **Function**

mRNA cap-binding component of the eukaryotic translation initiation factor 3 (eIF-3) complex, a complex required for several steps in the initiation of protein synthesis of a specialized repertoire of mRNAs (PubMed:<a href="http://www.uniprot.org/citations/27462815" target="\_blank">27462815</a>). The eIF-3 complex associates with the 40S ribosome and facilitates the recruitment of eIF-1, eIF-1A, eIF-2:GTP:methionyl-tRNAi and eIF-5 to form the 43S pre-initiation complex (43S PIC). The eIF-3 complex stimulates mRNA recruitment to the 43S PIC and scanning of the mRNA for AUG recognition. The eIF-3 complex is also required for disassembly and recycling of post-termination ribosomal complexes and subsequently prevents premature joining of the 40S and 60S ribosomal subunits prior to initiation (PubMed:<a href="http://www.uniprot.org/citations/18599441" target="\_blank">18599441</a>/a>, PubMed:<a



href="http://www.uniprot.org/citations/25849773" target="\_blank">25849773</a>). The eIF-3 complex specifically targets and initiates translation of a subset of mRNAs involved in cell proliferation, including cell cycling, differentiation and apoptosis, and uses different modes of RNA stem-loop binding to exert either translational activation or repression (PubMed:<a href="http://www.uniprot.org/citations/25849773" target="\_blank">25849773</a>). In the eIF-3 complex, EIF3D specifically recognizes and binds the 7-methylguanosine cap of a subset of mRNAs (PubMed:<a href="http://www.uniprot.org/citations/27462815" target=" blank">27462815</a>).

# **Cellular Location**

Cytoplasm {ECO:0000255|HAMAP-Rule:MF 03003}.

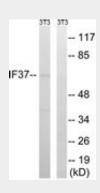
Volume 50 µl

# EIF3D Antibody (aa101-150) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# EIF3D Antibody (aa101-150) - Images



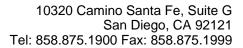
Western blot of extracts from NIH-3T3 cells, using EIF3D Antibody.

## EIF3D Antibody (aa101-150) - Background

Component of the eukaryotic translation initiation factor 3 (eIF-3) complex, which is required for several steps in the initiation of protein synthesis. The eIF-3 complex associates with the 40S ribosome and facilitates the recruitment of eIF-1, eIF-1A, eIF-2:GTP:methionyl-tRNAi and eIF-5 to form the 43S preinitiation complex (43S PIC). The eIF-3 complex stimulates mRNA recruitment to the 43S PIC and scanning of the mRNA for AUG recognition. The eIF-3 complex is also required for disassembly and recycling of post-termination ribosomal complexes and subsequently prevents premature joining of the 40S and 60S ribosomal subunits prior to initiation.

# EIF3D Antibody (aa101-150) - References

Asano K., et al.J. Biol. Chem. 272:27042-27052(1997).





Kalnine N., et al. Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases. Collins J.E., et al. Genome Biol. 5:R84.1-R84.11(2004).

Ota T., et al. Nat. Genet. 36:40-45(2004).

Dunham I., et al. Nature 402:489-495(1999).