

Anti-EIF3D Antibody

Catalog # AP53345

Product Information

Application	WB, IHC
Primary Accession	O15371
Reactivity	Human, Mouse, Rat, Bovine, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	63973

Additional Information

Gene ID	8664
Other Names	EIF3S7; Eukaryotic translation initiation factor 3 subunit D; eIF3d; Eukaryotic translation initiation factor 3 subunit 7; eIF-3-zeta; eIF3 p66
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human EIF3D. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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: 27462815). 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: 18599441 , PubMed: 25849773). 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: 25849773). In the eIF-3 complex, EIF3D

specifically recognizes and binds the 7-methylguanosine cap of a subset of mRNAs (PubMed:[27462815](#)).

Cellular Location

Cytoplasm {ECO:0000255|HAMAP-Rule:MF_03003}.

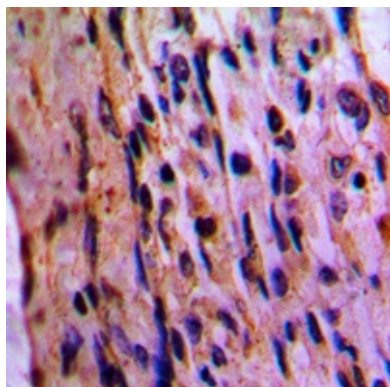
References

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).

Images



Western blot analysis of EIF3D expression in mouse lung (A) whole cell lysates. (Predicted band size: 63 kD; Observed band size: 64 kD)



Immunohistochemical analysis of EIF3D staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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