

Anti-EIF6 Antibody
Catalog # ABO11338**Specification**

Anti-EIF6 Antibody - Product Information

Application	WB, IHC
Primary Accession	P56537
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Eukaryotic translation initiation factor 6(EIF6) detection. Tested with WB, IHC-P, IHC-F in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-EIF6 Antibody - Additional Information

Gene ID 3692

Other Names

Eukaryotic translation initiation factor 6 {ECO:0000255|HAMAP-Rule:MF_03132}, eIF-6 {ECO:0000255|HAMAP-Rule:MF_03132}, B(2)GCN homolog, B4 integrin interactor, CAB, p27(BBP), IF6

Calculated MW

26599 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Human, Mouse, Rat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cytoplasm. Nucleus, nucleolus. Shuttles between cytoplasm and nucleus/nucleolus.

Tissue Specificity

Expressed at very high levels in colon carcinoma with lower levels in normal colon and ileum and lowest levels in kidney and muscle (at protein level). .

Protein Name

Eukaryotic translation initiation factor 6

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human EIF6 (82-96aa QHIRNSLPDTVQIRR), different from the related rat and mouse sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Anti-EIF6 Antibody - Protein Information

Name EIF6 {ECO:0000255|HAMAP-Rule:MF_03132, ECO:0000312|HGNC:HGNC:6159}

Function

Binds to the 60S ribosomal subunit and prevents its association with the 40S ribosomal subunit to form the 80S initiation complex in the cytoplasm (PubMed:10085284, PubMed:14654845, PubMed:21536732, PubMed:32669547). Behaves as a stimulatory translation initiation factor downstream insulin/growth factors. Is also involved in ribosome biogenesis. Associates with pre-60S subunits in the nucleus and is involved in its nuclear export. Cytoplasmic release of TIF6 from 60S subunits and nuclear relocalization is promoted by a RACK1 (RACK1)- dependent protein kinase C activity (PubMed:10085284, PubMed:14654845, PubMed:21536732). In tissues responsive to insulin, controls fatty acid synthesis and glycolysis by exerting translational control of adipogenic transcription factors such as CEBPB, CEBPD and ATF4 that have G/C rich or uORF in their 5'UTR. Required for ROS-dependent megakaryocyte maturation and platelets formation, controls the expression of mitochondrial respiratory chain genes involved in reactive oxygen species (ROS) synthesis (By similarity). Involved in miRNA-mediated gene silencing by the RNA-induced silencing complex (RISC). Required for both miRNA-mediated translational repression and miRNA-mediated cleavage of complementary mRNAs by RISC (PubMed:17507929). Modulates cell cycle progression and global translation of pre-B cells, its activation seems to be rate-limiting in tumorigenesis and tumor growth (By similarity).

Cellular Location

Cytoplasm. Nucleus, nucleolus. Note=Shuttles between cytoplasm and nucleus/nucleolus

Tissue Location

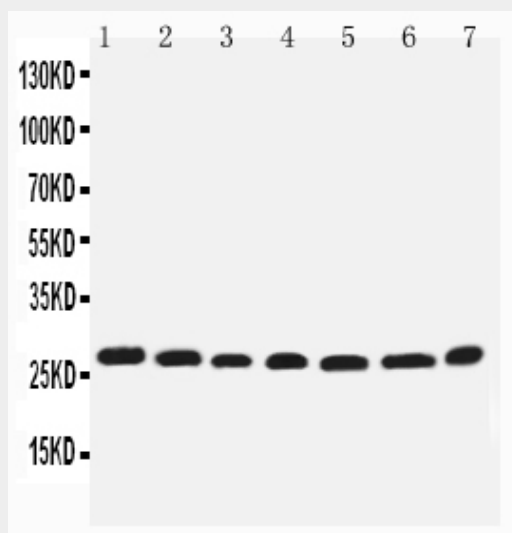
Expressed at very high levels in colon carcinoma with lower levels in normal colon and ileum and lowest levels in kidney and muscle (at protein level).

Anti-EIF6 Antibody - Protocols

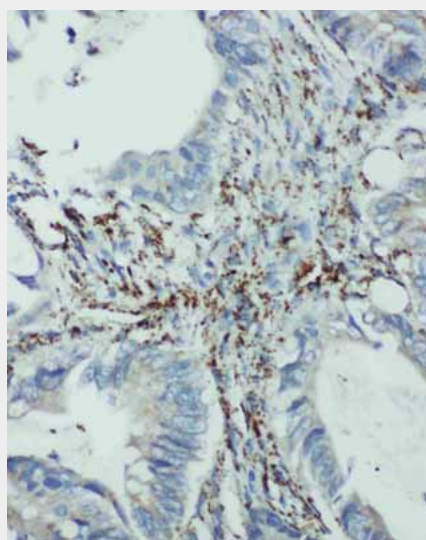
Provided below are standard protocols that you may find useful for product applications.

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

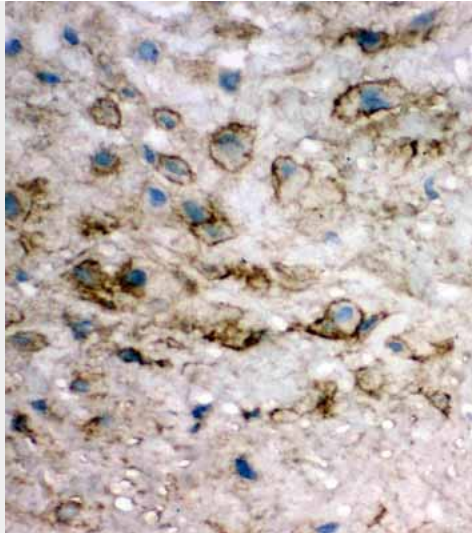
Anti-EIF6 Antibody - Images



Anti-EIF6 antibody, ABO11338, Western blotting
Lane 1: Rat Liver Tissue Lysate
Lane 2: Rat Kidney Tissue Lysate
Lane 3: COLO320 Cell Lysate
Lane 4: SW620 Cell Lysate
Lane 5: HELA Cell Lysate
Lane 6: 293T Cell Lysate
Lane 7: HEPA Cell Lysate



Anti-EIF6 antibody, ABO11338, IHC(P)
IHC(P): Human Intestinal Cancer Tissue



Anti-EIF6 antibody, ABO11338, IHC(F)IHC(F): Human Placenta Tissue

Anti-EIF6 Antibody - Background

EIF6(Eukaryotic Translation Initiation Factor 6), also called EIF3A or ITGB4BP, is a human gene. By fluorescence in situ hybridization, Sanvito et al.(1998) mapped the ITGB4BP gene to 20q11.2. Ceci et al.(2003) demonstrated that the ribosomal 60S subunit is activated by release of EIF6. In the cytoplasm, EIF6 is bound to free 60S but not to 80S subunits. Furthermore, EIF6 interacts in the cytoplasm with RACK1, a receptor for activated protein kinase C. Gandin et al.(2008) demonstrated that mammalian eIF6 is required for efficient initiation of translation in vivo. Eif6-null mouse embryos were lethal at preimplantation. Heterozygous mice had 50% reduction of eIF6 levels in all tissues, and showed reduced mass of hepatic and adipose tissues due to a lower number of cells and to impaired G1/S cell cycle progression.