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Anti-EIF6 Antibody

Catalog # ABO11338

Product Information

Application	WB, IHC-P, IHC-F
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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Immunohistochemistry(Frozen Section), 0.5-1 □g/ml, Human, Mouse, Rat Western blot, 0.1-0.5 □g/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). .
Source	Eukaryota
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.

Protein Information

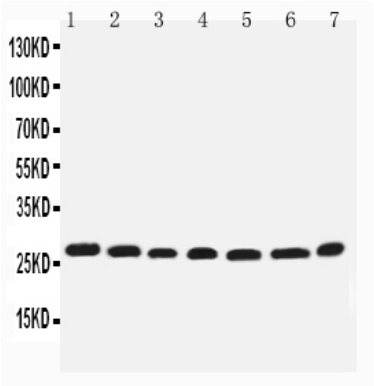
Name	EIF6 {ECO:0000255|HAMAP-Rule:MF_03132, ECO:0000312|HGNC:HGNC:6159}
Function	Binds to the 60S ribosomal subunit and prevents its association with the 40S ribosomal subunit to form the 80S initiation complex in the cytoplasm (PubMed:10085284, PubMed:14654845, PubMed:21536732, PubMed:32669547). Behaves 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).

Background

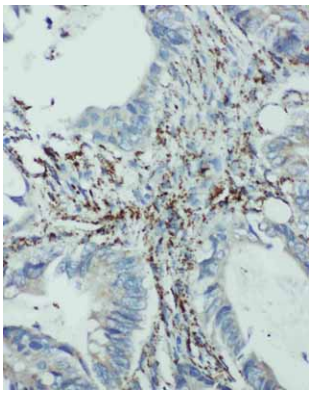
EIF6(Eukaryotic Translation Initiation Factor 6), also called EIF3A or ITGB4BP, is a human gene. By fluorescence in situ hybridization, Sanvito et al.(1998) mapped the ITGB4BP gene to 20q11.2. Ceci et al.(2003) demonstrated that the ribosomal 60S subunit is activated by release of EIF6. In the cytoplasm, 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.

Images

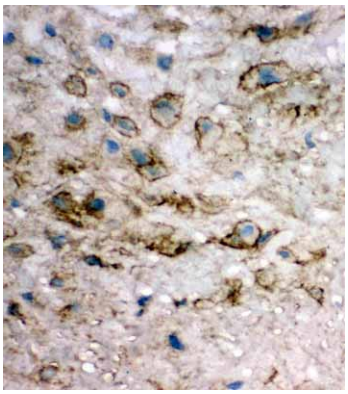
Anti-EIF6 antibody, ABO11338, Western blottingLane 1:



Rat Liver Tissue LysateLane 2: Rat Kidney Tissue LysateLane 3: COLO320 Cell LysateLane 4: SW620 Cell LysateLane 5: HELA Cell LysateLane 6: 293T Cell LysateLane 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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.