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Anti-EIF5A Antibody

Catalog # AP52004

Product Information

Application	WB, IF/IC
Primary Accession	P63241
Reactivity	Human, Mouse, Rat, Rabbit, Bovine, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16832

Additional Information

Gene ID	1984
Other Names	Eukaryotic translation initiation factor 5A-1; eIF-5A-1; eIF-5A1; Eukaryotic initiation factor 5A isoform 1; eIF-5A; Rev-binding factor; eIF-4D
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human EIF5A. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IF/IC~~N/A
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	EIF5A (HGNC:3300)
Function	Translation factor that promotes translation elongation and termination, particularly upon ribosome stalling at specific amino acid sequence contexts (PubMed:33547280). Binds between the exit (E) and peptidyl (P) site of the ribosome and promotes rescue of stalled ribosome: specifically required for efficient translation of polyproline-containing peptides as well as other motifs that stall the ribosome (By similarity). Acts as a ribosome quality control (RQC) cofactor by joining the RQC complex to facilitate peptidyl transfer during CAT tailing step (By similarity). Also involved in actin dynamics and cell cycle progression, mRNA decay and probably in a pathway involved in stress response and maintenance of cell wall integrity (PubMed:16987817). With syntenin SDCBP, functions as a regulator of p53/TP53 and p53/TP53-dependent apoptosis (PubMed:15371445). Also regulates TNF-mediated apoptosis (PubMed:15452064, PubMed:17187778). Mediates effects of polyamines on neuronal process extension and survival (PubMed:17360499). Is required for autophagy by assisting the ribosome in

translating the ATG3 protein at a specific amino acid sequence, the 'ASP-ASP-Gly' motif, leading to the increase of the efficiency of ATG3 translation and facilitation of LC3B lipidation and autophagosome formation (PubMed:29712776).

Cellular Location

Cytoplasm. Nucleus. Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Note=Hypusine modification promotes the nuclear export and cytoplasmic localization and there was a dynamic shift in the localization from predominantly cytoplasmic to primarily nuclear under apoptotic inducing conditions (PubMed:19379712, PubMed:27306458). Nuclear export of hypusinated protein is mediated by XPO4 (PubMed:10944119, PubMed:27306458).

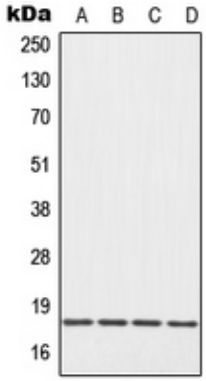
Tissue Location

Expressed in umbilical vein endothelial cells and several cancer cell lines (at protein level)

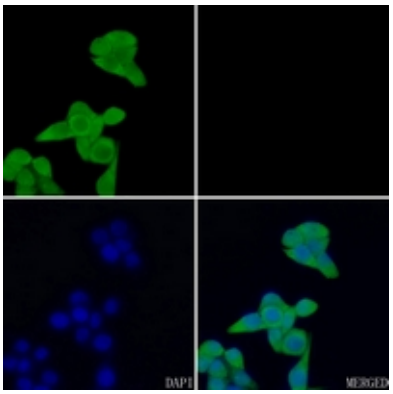
References

Smit-Mcbride Z.,et al.J. Biol. Chem. 264:1578-1583(1989).
Ruhl M.,et al.J. Cell Biol. 123:1309-1320(1993).
Koettnitz K.,et al.Gene 144:249-252(1994).
Koettnitz K.,et al.Gene 159:283-284(1995).
Johansson H.E.,et al.Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.

Images



Western blot analysis of EIF5A expression in Raji (A), HepG2 (B), Raw264.7 (C), PC12 (D) whole cell lysates. (Predicted band size: 16 kD; Observed band size: 18 kD)



Immunofluorescent analysis of EIF5A staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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