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EF-1 α1/2 (Acetyl Lys41) Polyclonal Antibody

Catalog # AP63225

Product Information

Application	WB, E
Primary Accession	P68104
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50141

Additional Information

Gene ID	1915
Other Names	EEF1A1; EEF1A; EF1A; LENG7; Elongation factor 1-alpha 1; EF-1-alpha-1; Elongation factor Tu; EF-Tu; Eukaryotic elongation factor 1 A-1; eEF1A-1; Leukocyte receptor cluster member 7; EEF1A2; EEF1AL; STN; Elongation factor 1-alpha 2; EF-1-alpha-2;Eukaryotic elongation factor 1 A-2; eEF1A-2; Statin-S1; EEF1A1P5; EEF1AL3; Putative elongation factor 1-alpha-like 3; EF-1-alpha-like 3; Eukaryotic elongation factor 1 A-like 3; eEF1A-like 3; Eukaryotic translation elongation factor 1 alpha-1 pseudogene 5
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	EEF1A1
Synonyms	EEF1A, EF1A, LENG7
Function	Translation elongation factor that catalyzes the GTP- dependent binding of aminoacyl-tRNA (aa-tRNA) to the A-site of ribosomes during the elongation phase of protein synthesis (PubMed:26593721, PubMed:26651998, PubMed:36123449, PubMed:36264623, PubMed:36638793). Base pairing between the mRNA codon and the aa-tRNA anticodon promotes GTP hydrolysis, releasing the aa-tRNA from EEF1A1 and allowing its accommodation into the ribosome (PubMed:26593721, PubMed:26651998, PubMed:36123449, PubMed:36264623, PubMed:36638793). The growing protein chain is subsequently transferred from the P-site peptidyl tRNA to the A-site aa-tRNA, extending it by one amino acid through ribosome-catalyzed

peptide bond formation (PubMed:26593721, PubMed:26651998, PubMed:36123449, PubMed:36264623). Also plays a role in the positive regulation of IFNG transcription in T-helper 1 cells as part of an IFNG promoter-binding complex with TXK and PARP1 (PubMed:17177976). Also plays a role in cytoskeleton organization by promoting actin bundling (By similarity).

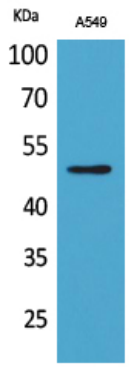
Cellular Location

Cytoplasm. Nucleus. Nucleus, nucleolus. Cell membrane. Note=Colocalizes with DLC1 at actin-rich regions in the cell periphery (PubMed:19158340). Translocates together with ZPR1 from the cytoplasm to the nucleus and nucleolus after treatment with mitogens (PubMed:8650580). Localization at the cell membrane depends on EEF1A1 phosphorylation status and the presence of PPP1R16B (PubMed:26497934).

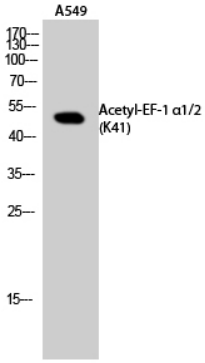
Background

This protein promotes the GTP-dependent binding of aminoacyl-tRNA to the A-site of ribosomes during protein biosynthesis. With PARP1 and TXK, forms a complex that acts as a T helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFN-gamma to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production.

Images



Western Blot analysis of A549 cells using Acetyl-EF-1 α1/2 (K41) Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Western Blot analysis of A549 cells using Acetyl-EF-1 α1/2 (K41) Polyclonal Antibody. Secondary antibody was diluted at 1:20000

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