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EEF1A1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6592b

Product Information

Application	WB, FC, IF, IHC-P, E
Primary Accession	P68104
Other Accession	Q92005, Q90835, Q5VTE0, P62632, Q71V39, P62631, Q05639, Q32PH8, P62630, P68105, P10126, P62629, P68103, P13549
Reactivity	Human
Predicted	Xenopus, Bovine, Hamster, Mouse, Rabbit, Rat, Chicken, Zebrafish, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19608
Calculated MW	50141
Antigen Region	361-389

Additional Information

Gene ID	1915
Other Names	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, EEF1A1, EEF1A, EF1A, LENG7
Target/Specificity	This EEF1A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 361-389 amino acids from the C-terminal region of human EEF1A1.
Dilution	WB~~1:1000 FC~~1:10~50 IF~~1:10~50 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EEF1A1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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).

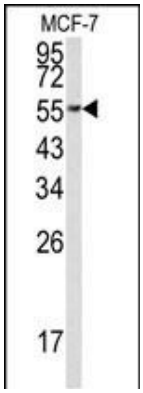
Background

EEF1A1 is an isoform of the alpha subunit of the elongation factor-1 complex, which is responsible for the enzymatic delivery of aminoacyl tRNAs to the ribosome. This isoform (alpha 1) is expressed in brain, placenta, lung, liver, kidney, and pancreas, and the other isoform (alpha 2) is expressed in brain, heart and skeletal muscle. This isoform is identified as an autoantigen in 66% of patients with Felty syndrome.

References

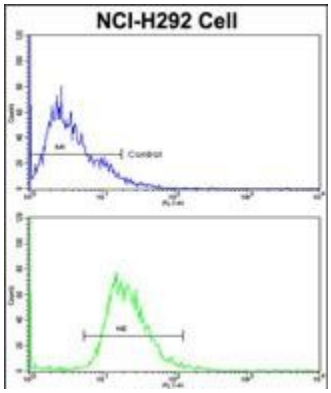
Byun,H.O., Cancer Res. 69 (11), 4638-4647 (2009)

Images

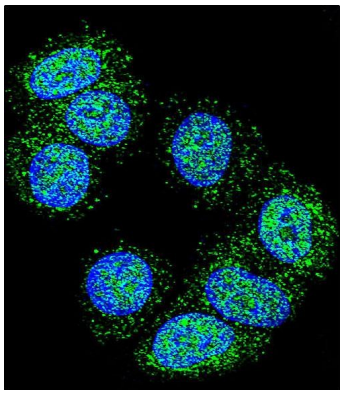


Western blot analysis of EEF1A1 Antibody (C-term) (Cat. #AP6592b) in MCF-7 cell line lysates (35ug/lane). EEF1A1 (arrow) was detected using the purified Pab.

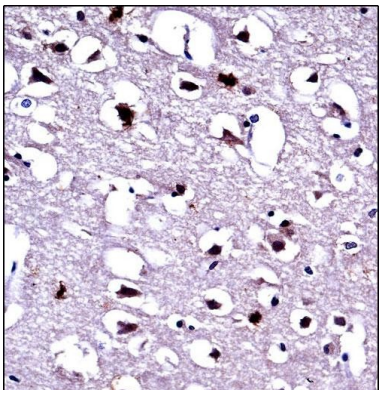
Flow cytometric analysis of NCI-H292 cells using EEF1A1 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the



analysis.



Confocal immunofluorescent analysis of EEF1A1 Antibody (C-term)(Cat#AP6592b) with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).



EEF1A1 Antibody (C-term) (AP6592b)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of EEF1A1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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