

## EEF1A1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6592b

# **Specification**

#### EEF1A1 Antibody (C-term) - Product Information

Application IF, WB, IHC-P, FC,E

Primary Accession P68104

Other Accession <u>Q92005</u>, <u>Q90835</u>, <u>Q5VTE0</u>, <u>P62632</u>, <u>Q71V39</u>,

P62631, Q05639, Q32PH8, P62630, P68105, P10126, P62629, P68103, P13549, A2Q0Z0

Reactivity Huma

Predicted Xenopus, Bovine, Hamster, Horse, Mouse,

Rabbit, Rat, Chicken, Zebrafish

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 50141
Antigen Region 361-389

### EEF1A1 Antibody (C-term) - 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**

IF~~1:10~50 WB~~1:1000 IHC-P~~1:10~50 FC~~1:10~50

# 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.



#### **EEF1A1** Antibody (C-term) - 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).

#### **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).

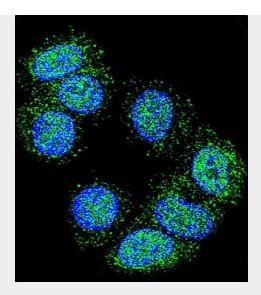
#### **EEF1A1 Antibody (C-term) - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### EEF1A1 Antibody (C-term) - Images

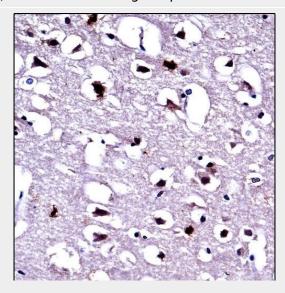




Confocal immunofluorescent analysis of EEF1A1 Antibody (C-term)(Cat#AP6592b) with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).

| MCF-7    |
|----------|
| 95<br>72 |
| 55-◀     |
| 43       |
| 34       |
| 26       |
| 17       |

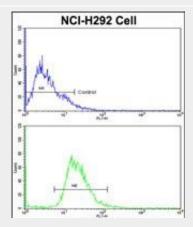
Western blot analysis of EEF1A1 Antibody (C-term) (Cat. #AP6592b) in MCF-7 cell line lysates (35ug/lane). EEF1A1 (arrow) was detected using the purified Pab.



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.



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.

### EEF1A1 Antibody (C-term) - 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.

### **EEF1A1 Antibody (C-term) - References**

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