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EEF1A1/ EEF1A2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6592a

Specification

EEF1A1/ EEF1A2 Antibody (N-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P68104
Other Accession	P02994, Q92005, Q90835, P53013, P17508, Q5VTE0, P17507, P62632, Q71V39, P62631, Q05639, P05303, Q32PH8, P17506, P62630, P68105, P10126, P08736, P62629, P68103, P13549, A2Q0Z0
Reactivity	**Human**
Predicted	**Xenopus, Bovine, Hamster, Drosophila, Horse, Mouse, Rabbit, Rat, C.Elegans, Chicken, Zebrafish, Yeast**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**46-72**

EEF1A1/ EEF1A2 Antibody (N-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 46-72 amino acids of human EEF1A1.

Dilution
WB~~1:1000
IHC-P~~1:50~100
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/ EEF1A2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

EEF1A1/ EEF1A2 Antibody (N-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:26651998, PubMed:26593721, PubMed:36264623, PubMed:36123449, 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:26651998, PubMed:26593721, PubMed:36264623, PubMed:36123449, 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:26651998, PubMed:26593721, PubMed:36264623, PubMed:36123449). 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).

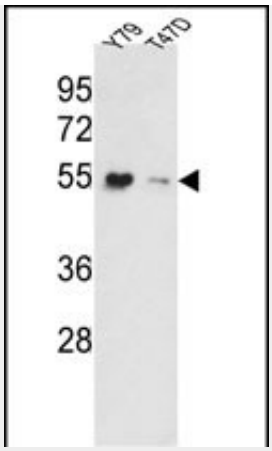
EEF1A1/ EEF1A2 Antibody (N-term) - Protocols

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

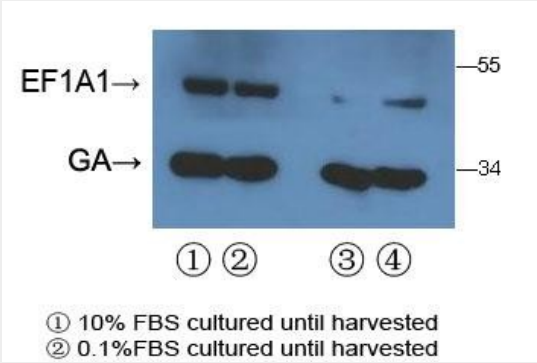
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

EEF1A1/ EEF1A2 Antibody (N-term) - Images

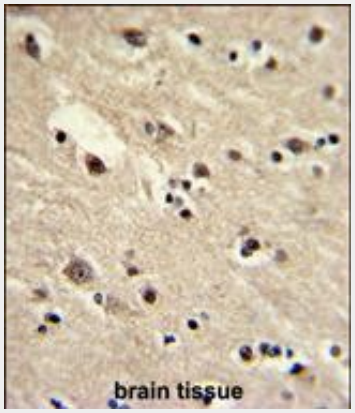
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Western blot analysis of EEF1A1/ EEF1A2 Antibody (N-term) (Cat. #AP6592a) in Y79, T47D cell line lysates (35ug/lane). EEF1A1/ EEF1A2 (arrow) was detected using the purified Pab.

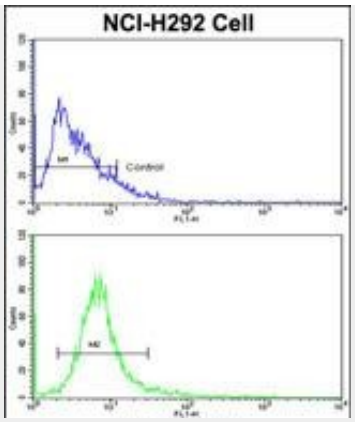


With 293T cell line lysate,resolved proteins were electrophoretically transferred to PVDF membrane and incubated sequentially with primary antibody EEF1A1/ EEF1A2 (abgent, Cat. AP6592a, 1:500, 4°C□overnight) and horseradish peroxidase–conjugated second antibo dy(rabbit). After washing, the bound antibody complex was detected using an ECL chemiluminescence reagent and XAR film (Kodak).



Formalin-fixed and paraffin-embedded human brain with EEF1A1/ EEF1A2 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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Flow cytometric analysis of NCI-H292 cells using EEF1A1/ EEF1A2 Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

EEF1A1/ EEF1A2 Antibody (N-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/ EEF1A2 Antibody (N-term) - References

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

EEF1A1/ EEF1A2 Antibody (N-term) - Citations

- Elongation factor-1A1 is a novel substrate of the protein phosphatase 1-TIMAP complex.
- Alcohol Intoxication Following Muscle Contraction in Mice Decreases Muscle Protein Synthesis But Not mTOR Signal Transduction.
- Cytoplasmic protein methylation is essential for neural crest migration.
- Proteomic study of HPV-positive head and neck cancers: preliminary results.