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ERAS Antibody (N-term) (F66)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1470D

Specification

ERAS Antibody (N-term) (F66) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	Q7Z444
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**25287**
Antigen Region	**51-81**

ERAS Antibody (N-term) (F66) - Additional Information

Gene ID 3266

Other Names
GTPase ERas, E-Ras, Embryonic stem cell-expressed Ras, ERAS, HRAS2, HRASP

Target/Specificity
This ERAS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 51-81 amino acids from the N-terminal region of human ERAS.

Dilution
IF~~1:100
WB~~1:1000
IHC-P~~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
ERAS Antibody (N-term) (F66) is for research use only and not for use in diagnostic or therapeutic procedures.

ERAS Antibody (N-term) (F66) - Protein Information

Name ERAS

Synonyms HRAS2, HRASP

Function Ras proteins bind GDP/GTP and possess intrinsic GTPase activity. Plays an important role in the tumor-like growth properties of embryonic stem cells (By similarity).

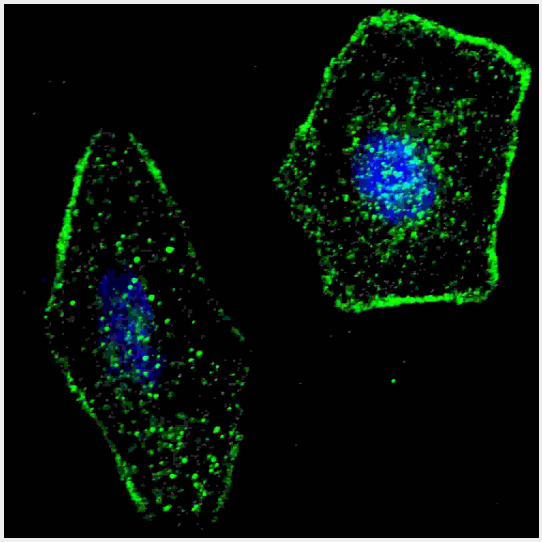
Cellular Location
Cell membrane; Lipid-anchor; Cytoplasmic side

ERAS Antibody (N-term) (F66) - 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

ERAS Antibody (N-term) (F66) - Images



Fluorescent confocal image of SY5Y cells stained with ERAS (N-term) (F66) antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP1470d ERAS (N-term) (F66) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). ERAS immunoreactivity is localized to the plasma membrane of SY5Y cells.

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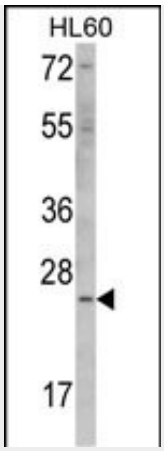
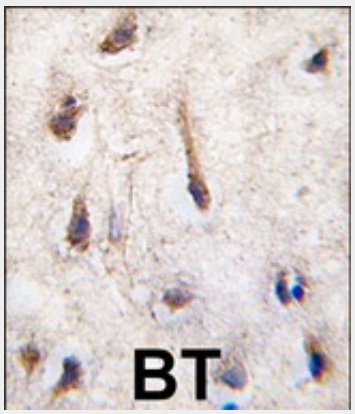


Western blot analysis of ERAS Antibody (N-term) (F66) (Cat. #AP1470d) in HL60 cell line lysates (35ug/lane). ERAS (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain tissue reacted with ERAS antibody (N-term) (F66) (Cat.#AP1470d), 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.

ERAS Antibody (N-term) (F66) - Background

Ras proteins bind GDP/GTP and possess intrinsic GTPase activity. Point mutations of several amino acids of human RAS, including gly12, ala59, or glu63, render the protein constitutively active. Embryonic stem cell-expressed Ras (ERAS) has serine, alanine, and asparagine at the positions corresponding to gly12, ala59, and glu63 of human RAS, suggesting that it is constitutively active.The PI3K (phosphoinositide 3-kinase) pathway is important for proliferation, survival and maintenance of pluripotency in ES cells. The PI3K pathway is activated by growth factors and cytokines including insulin and leukaemia inhibitory factor. In addition to these exogenous factors, the PI3K pathway is endogenously activated by the constitutively active Ras family protein ERas (ES cell-expressed Ras). ERas null ES cells maintained pluripotency but show significantly reduced growth and tumorigenicity, which can be rescued by expression of ERas cDNA or by activated phosphatidylinositol 3-hydroxykinase. The transforming oncogene ERAS appears to be important in the tumor-like growth properties of ES cells.

ERAS Antibody (N-term) (F66) - References

References for protein:
1.Kameda,T., Stem Cells 23 (10), 1535-1540 (2005)
2.Takahashi,K., Nature 423 (6939), 541-545 (2003)
3.Miyoshi,J., Nucleic Acids Res. 12 (4), 1821-1828 (1984)

References for SY5Y (SH-SY5Y; ATCC#CRL-2266): 1. Ross RA, et al. Coordinate morphological and biochemical interconversion of human neuroblastoma cells. J. Natl. Cancer Inst. 71: 741-749, 1983. [PubMed: 6137586]; 2. Biedler JL, et al. Multiple neurotransmitter synthesis by human neuroblastoma cell lines and clones. Cancer Res. 38: 3751-3757, 1978. [PubMed: 29704].