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ERAS Antibody (N-term) (A28)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1470e

Product Information

Application	IHC-P, WB, E
Primary Accession	Q7Z444
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13104
Calculated MW	25287
Antigen Region	20-50

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 20~50 amino acids from the N-terminal region of human ERAS.
Dilution	IHC-P~~1:100~500 WB~~1:1000 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	ERAS Antibody (N-term) (A28) is for research use only and not for use in diagnostic or therapeutic procedures.

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

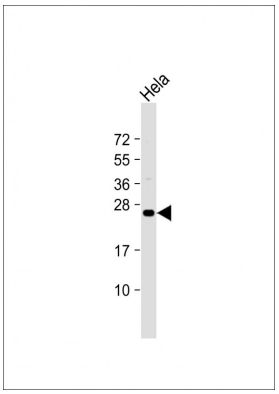
Background

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.

References

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

Images



Anti-ERAS Antibody (N-term) (A28) at 1:1000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human brain tissue reacted with ERAS antibody (N-term) (A28), 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.

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