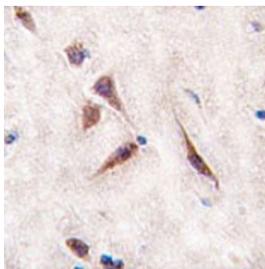


ERAS Antibody / GTPase ERas (F54697)

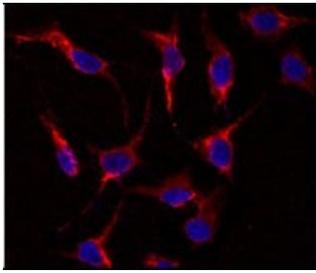
Catalog No.	Formulation	Size
F54697-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54697-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

[Bulk quote request](#)

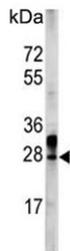
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	Q7Z444
Applications	Flow Cytometry : 1:25 (1x10e6 cells) Immunofluorescence : 1:25 Immunohistochemistry (FFPE) : 1:25 Western Blot : 1:500-1:2000
Limitations	This ERAS antibody is available for research use only.



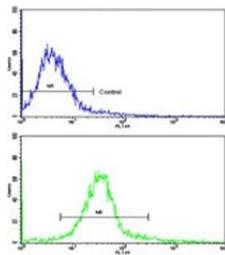
IHC testing of FFPE human brain tissue with ERAS antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



Immunofluorescent staining of human HeLa cells with ERAS antibody (red) and DAPI nuclear stain (blue).



Western blot testing of human K562 cell lysate with ERAS antibody. Predicted molecular weight ~25 kDa.



Flow cytometry testing of human HeLa cells with ERAS antibody; Blue=isotype control, Green= ERAS antibody.

Description

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.

Application Notes

The stated application concentrations are suggested starting points. Titration of the ERAS antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 13-42 from the human protein was used as the immunogen for the ERAS antibody.

Storage

Aliquot the ERAS antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.

