

ERAS Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1470a**Specification**

ERAS Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q7Z444](#)**ERAS Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 3266**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1470a](/product/products/AP1470a) was selected from the N-term region of human ERAS. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ERAS Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ERAS Antibody (N-term) Blocking Peptide - Images

ERAS Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - 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)