

E-Ras (A-18): sc-51072

BACKGROUND

The Ras-encoded family of proteins bind to GDP and to GTP with high affinity. They possess a low level of intrinsic GTPase activity that can be stimulated more than 100-fold by interaction with cytosolic GTPase activating protein (GAP). Ras family members include H-Ras, K-Ras, N-Ras, M-Ras, R-Ras, E-Ras, Rheb, TC 21, RASL11B and Rad GTPase. H-Ras and K-Ras were first identified as oncogenes of acutely transforming RNA tumor viruses. Subsequently, mutated Ras genes have been found in many human tumors, providing evidence for a common genetic target in cancer. In mammals, a variety of extracellular growth factors that act through protein tyrosine kinase receptors, such as Insulin, platelet-derived growth factor and nerve growth factor, require Ras to exert their effects. Embryonic stem cell-expressed Ras (E-Ras) is a 277 amino acid protein that localizes to the cytoplasmic membrane and shares 43%, 46% and 47% identity with H-Ras, K-Ras and N-Ras, respectively. E-Ras contains five highly conserved domains essential for small G proteins and a CAAX motif.

REFERENCES

- Miyoshi, J., et al. 1984. The human c-Ha-Ras2 is a processed pseudogene inactivated by numerous base substitutions. *Nucleic Acids Res.* 12: 1821-1828.
- Bauer, P.I., et al. 2002. Anticancer action of 4-iodo-3-nitrobenzamide in combination with buthionine sulfoximine: inactivation of poly(ADP-ribose) polymerase and tumor glycolysis and the appearance of a poly(ADP-ribose) polymerase protease. *Biochem. Pharmacol.* 63: 455-462.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300437. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Eras (mouse) mapping to X A1.1.

SOURCE

E-Ras (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of E-Ras of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-51072 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

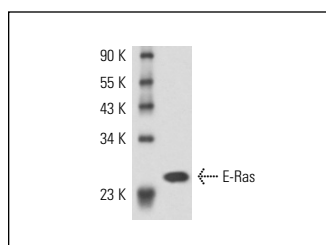
E-Ras (A-18) is recommended for detection of E-Ras of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for E-Ras siRNA (m): sc-60565, E-Ras shRNA Plasmid (m): sc-60565-SH and E-Ras shRNA (m) Lentiviral Particles: sc-60565-V.

Molecular Weight of E-Ras: 24 kDa.

Positive Controls: F9 cell lysate: sc-2245.

DATA



E-Ras (A-18): sc-51072. Western blot analysis of E-Ras expression in F9 whole cell lysate.

SELECT PRODUCT CITATIONS

- Naujok, O., et al. 2010. Selective removal of undifferentiated embryonic stem cells from differentiation cultures through HSV1 thymidine kinase and ganciclovir treatment. *Stem Cell Rev.* 6: 450-461.
- Jin, J., et al. 2011. Analysis of differential proteomes of induced pluripotent stem cells by protein-based reprogramming of fibroblasts. *J. Proteome Res.* 10: 977-989.
- Wang, C.H., et al. 2012. A shRNA functional screen reveals Nme6 and Nme7 are crucial for embryonic stem cell renewal. *Stem Cells* 30: 2199-2211.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **E-Ras (B-12): sc-393268**, our highly recommended monoclonal alternative to E-Ras (A-18).