

E-Ras (B-12): sc-393268

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.L., 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/>
- Takahashi, K., et al. 2003. Role of E-Ras in promoting tumour-like properties in mouse embryonic stem cells. *Nature* 423: 541-545.

CHROMOSOMAL LOCATION

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

SOURCE

E-Ras (B-12) is a mouse monoclonal antibody raised against amino acids 186-227 mapping at the C-terminus of E-Ras of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

E-Ras (B-12) is available conjugated to agarose (sc-393268 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393268 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393268 PE), fluorescein (sc-393268 FITC), Alexa Fluor® 488 (sc-393268 AF488), Alexa Fluor® 546 (sc-393268 AF546), Alexa Fluor® 594 (sc-393268 AF594) or Alexa Fluor® 647 (sc-393268 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393268 AF680) or Alexa Fluor® 790 (sc-393268 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

E-Ras (B-12) is recommended for detection of E-Ras of mouse and rat origin by Western Blotting (starting dilution 1:100, 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.

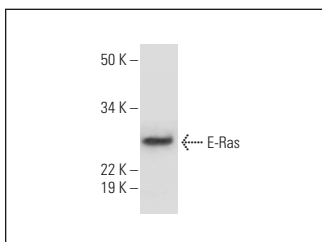
Molecular Weight of E-Ras: 24 kDa.

Positive Controls: F9 cell lysate: sc-2245 or P19 cell lysate: sc-24760.

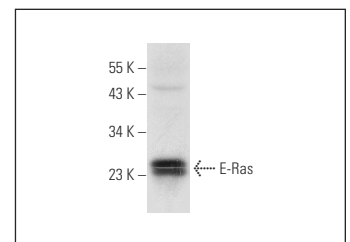
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



E-Ras (B-12): sc-393268. Western blot analysis of E-Ras expression in F9 whole cell lysate.



E-Ras (B-12): sc-393268. Western blot analysis of E-Ras expression in P19 whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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