



K-Ras (m): 293T Lysate: sc-121173

BACKGROUND

The mammalian Ras (also designated v-Ha-Ras, Harvey rat sarcoma viral oncogene homolog, HRAS1, K-Ras, N-Ras, RASH1 or c-bas/has) gene family consists of the Harvey and Kirsten Ras genes (c-H-Ras1 and c-K-Ras2), an inactive pseudogene of each (c-H-Ras2 and c-K-Ras1) and the N-Ras gene. The three Ras oncogenes, H-Ras, K-Ras and N-Ras, encode proteins with GTP/GDP binding and GTPase activity. Ras proteins alternate between an inactive form bound to GDP and an active form bound to GTP, activated by a guanine nucleotide-exchange factor (GEF) and inactivated by a GTPase-activating protein (GAP). Ras nomenclature originates from the characterization of human DNA sequences homologous to cloned DNA fragments containing oncogenic sequences of a type C mammalian retrovirus, the Harvey strain of murine sarcoma virus (HaMSV), derived from the rat. Under normal conditions, Ras family members influence cell growth and differentiation events in a subcellular membrane compartmentalization-based signaling system. Oncogenic Ras can deregulate processes that control both cell proliferation and apoptosis. The Ras superfamily of GTP hydrolysis-coupled signal transduction relay proteins can be subclassified into Ras, Rho, Rab and ARF families.

REFERENCES

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4. Weber, M.J., et al. 2004. Ras signaling in prostate cancer progression. *J. Cell. Biochem.* 91: 13-25.
5. Giehl, K. 2005. Oncogenic Ras in tumour progression and metastasis. *Biol. Chem.* 386: 193-205.
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7. Quatela, S.E. and Philips, M.R. 2006. Ras signaling on the Golgi. *Curr. Opin. Cell Biol.* 18: 162-167.
8. Mor, A. and Philips, M.R. 2006. Compartmentalized Ras/MAPK signaling. *Annu. Rev. Immunol.* 24: 771-800.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: KRAS (human) mapping to 12p12.1.

PRODUCT

K-Ras (m): 293T Lysate represents a lysate of mouse K-Ras transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

K-Ras (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive K-Ras antibodies. Recommended use: 10-20 µl per lane.

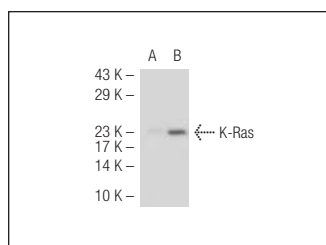
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

K-Ras (F234): sc-30 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse K-Ras expression in K-Ras transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

DATA



K-Ras (F234): sc-30. Western blot analysis of K-Ras expression in non-transfected: sc-117752 (A) and mouse K-Ras transfected: sc-121173 (B) 293T whole cell lysates.

RESEARCH USE

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