

# SgK223 (E-14): sc-87365

## BACKGROUND

The Ras p21 family of guanine nucleotide proteins has been widely studied in view of its role in signal transduction pathways and high frequency of mutations in human malignancies. The founding members of the Ras family (H-, K- and N-Ras p21) are members of a much larger superfamily of related proteins. Six members of this family, Rap 1A, Rap 1B, Rap 2, R-Ras, Ral A and Ral B, exhibit approximately 50% amino acid homology to Ras. The mammalian Rho proteins (Rho A, B, C, 6, 7 and 8) are approximately 30% homologous to Ras and are expressed in a wide range of cell types. Three Rho-related GTPases Rnd1 (Rho 6), Rnd2 (Rho 7) and Rnd3 (Rho 8 or Rho E) form a distinct branch of the Rho family since they differ from other Rho proteins in size, charge and biochemical properties. Rnd proteins are likely to be farnesylated, and appear to be constitutively in the activated GTP-bound form. Rnd proteins act as negative regulators of Actin assembly and of cell adhesion. Rnd2 binds to SgK223 (sugen kinase 223) in a GTP-dependent manner. Rnd2-bound SgK223 stimulates Rho A activity and induces cell contraction to regulate neurite outgrowth.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SGK223 (human) mapping to 8p23.1; D8Ertd82e (mouse) mapping to 8 A4.

## SOURCE

SgK223 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SgK223 of human origin.

## RESEARCH USE

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

## 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-87365 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SgK223 (E-14) is recommended for detection of SgK223 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SgK223 (E-14) is also recommended for detection of SgK223 in additional species, including equine and canine.

Suitable for use as control antibody for Sgk223 siRNA (h): sc-77433, Sgk223 siRNA (m): sc-142856, Sgk223 shRNA Plasmid (h): sc-77433-SH, Sgk223 shRNA Plasmid (m): sc-142856-SH, Sgk223 shRNA (h) Lentiviral Particles: sc-77433-V and Sgk223 shRNA (m) Lentiviral Particles: sc-142856-V.

Molecular Weight of SgK223: 175 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **SgK223 (A-6): sc-398164** or **Sgk223 (O67): sc-130491**, our highly recommended monoclonal alternatives to SgK223 (E-14).