

# KHS (E-5): sc-374070

## BACKGROUND

Several mammalian kinases have been identified with sequence similarity to the *Saccharomyces cerevisiae* serine/threonine kinase Ste20. Ste20 is involved in relaying signals from G protein-coupled receptors to cytosolic MAP kinase cascades, and it lies upstream of a MAP kinase kinase kinase. Mammalian Ste20-like kinases include KHS, GLK, NIK, YSK1, HPK1, Krs-1, Krs-2 and GC kinase. KHS (for kinase homologous to SPS1/Ste20) is a protein that is most closely related to GC kinase. The KHS kinase has been shown to activate a variety of substrates, including JNK, suggesting a role in stress response.

## CHROMOSOMAL LOCATION

Genetic locus: MAP4K5 (human) mapping to 14q21.3; Map4k5 (mouse) mapping to 12 C2.

## SOURCE

KHS (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-29 at the N-terminus of KHS of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KHS (E-5) is available conjugated to agarose (sc-374070 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374070 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374070 PE), fluorescein (sc-374070 FITC), Alexa Fluor® 488 (sc-374070 AF488), Alexa Fluor® 546 (sc-374070 AF546), Alexa Fluor® 594 (sc-374070 AF594) or Alexa Fluor® 647 (sc-374070 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374070 AF680) or Alexa Fluor® 790 (sc-374070 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374070 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

KHS (E-5) is recommended for detection of KHS of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). KHS (E-5) is also recommended for detection of KHS in additional species, including canine.

Suitable for use as control antibody for KHS siRNA (h): sc-39245, KHS siRNA (m): sc-39246, KHS shRNA Plasmid (h): sc-39245-SH, KHS shRNA Plasmid (m): sc-39246-SH, KHS shRNA (h) Lentiviral Particles: sc-39245-V and KHS shRNA (m) Lentiviral Particles: sc-39246-V.

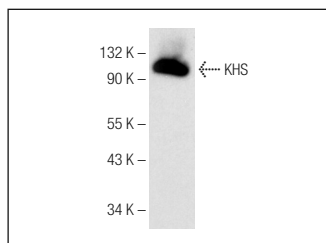
Molecular Weight of KHS: 95 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, IMR-32 cell lysate: sc-2409 or NIH/3T3 whole cell lysate: sc-2210.

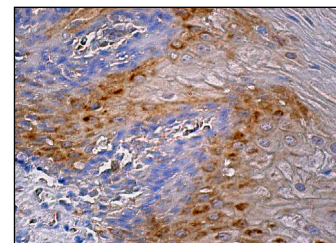
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



KHS (E-5): sc-374070. Western blot analysis of KHS expression in HuT 78 whole cell lysate.



KHS (E-5): sc-374070. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

## SELECT PRODUCT CITATIONS

- Sumi, N.J., et al. 2019. Divergent polypharmacology-driven cellular activity of structurally similar multi-kinase inhibitors through cumulative effects on individual targets. *Cell Chem. Biol.* 26: 26: 1240-1252.e11.

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

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