

# HXK III (H-130): sc-28890

## BACKGROUND

The hexokinases utilize Mg-ATP as a phosphoryl donor to catalyze the first step of intracellular glucose metabolism, the conversion of glucose to glucose-6-phosphate. Four hexokinase isoenzymes have been identified, including hexokinase I (HXK I), hexokinase II (HXK II), hexokinase III (HXK III) and hexokinase IV (HXK IV, also designated glucokinase or GCK). Hexokinases I-III each contain an N-terminal cluster of hydrophobic amino acids. Glucokinase lacks the N-terminal hydrophobic cluster. The hydrophobic cluster is thought to be necessary for membrane binding. This is substantiated by the finding that glucokinase has lower affinity for glucose than do the other hexokinases. HXK I has been shown to be expressed in brain, kidney and heart tissues as well as in hepatoma cell lines. HXK II is involved in the uptake and utilization of glucose by adipose and skeletal tissues. Of the hexokinases, HXK III has the highest affinity for glucose. Glucokinase is expressed in pancreatic beta cells where it functions as a glucose sensor, determining the "set point" for Insulin secretion.

## CHROMOSOMAL LOCATION

Genetic locus: HK3 (human) mapping to 5q35.2; Hk3 (mouse) mapping to 13 B1.

## SOURCE

HXK III (H-130) is a rabbit polyclonal antibody raised against amino acids 1-130 mapping at the N-terminus of HXK III of human origin.

## PRODUCT

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

## RESEARCH USE

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

## APPLICATIONS

HXK III (H-130) is recommended for detection of HXK III of mouse, rat and human 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).

HXK III (H-130) is also recommended for detection of HXK III in additional species, including equine.

Suitable for use as control antibody for HXK III siRNA (h): sc-39046, HXk III siRNA (m): sc-39047, HXK III shRNA Plasmid (h): sc-39046-SH, HXk III shRNA Plasmid (m): sc-39047-SH, HXK III shRNA (h) Lentiviral Particles: sc-39046-V and HXk III shRNA (m) Lentiviral Particles: sc-39047-V.

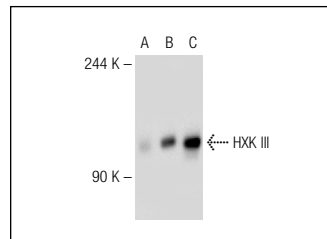
Molecular Weight of HXK III: 100 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Sol8 cell lysate: sc-2249 or HXK III (h3): 293T Lysate: sc-170538.

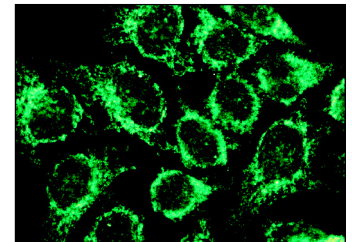
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



HXK III (H-130): sc-28890. Western blot analysis of HXK III expression in non-transfected 293T: sc-117752 (A), human HXK III transfected 293T: sc-170538 (B) and HeLa (C) whole cell lysates.



HXK III (H-130): sc-28890. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.



Try **HXK III (A-9): sc-74488** or **HXK III (4F5): sc-81664**, our highly recommended monoclonal alternatives to HXK III (H-130).