

# NKHC2 (H-60): sc-134602

## BACKGROUND

Neuronal kinesin heavy chain 2 (NKHC2) is a 1,032 amino acid protein that is part of the kinesin superfamily which consists of the heavy chains of conventional kinesin. NKHC is expressed throughout the central nervous system, but is highly expressed in certain subsets of neurons. NKHC has a unique C-terminal stretch of 69 amino acids and interacts with dystrobrevin, an adaptor/scaffolding protein. This interaction may play a role in the transport and targeting of components of the dystrophin-associated protein complex to precise sites in the cell. NKHC may also be involved in the microtubule-dependent slow axonal transport of neurofilament proteins during the maturation of neuronal cells.

## REFERENCES

- Vignali, G., et al. 1997. Expression of neuronal kinesin heavy chain is developmentally regulated in the central nervous system of the rat. *J. Neurochem.* 69: 1840-1849.
- Rahman, A., et al. 1999. Defective kinesin heavy chain behavior in mouse kinesin light chain mutants. *J. Cell Biol.* 146: 1277-1288.

## CHROMOSOMAL LOCATION

Genetic locus: KIF5C (human) mapping to 2q23.1; Kif5c (mouse) mapping to 2 C1.1.

## SOURCE

NKHC2 (H-60) is a rabbit polyclonal antibody raised against amino acids 371-430 mapping within an internal region of NKHC2 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.

## APPLICATIONS

NKHC2 (H-60) is recommended for detection of NKHC2 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).

NKHC2 (H-60) is also recommended for detection of NKHC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NKHC2 siRNA (h): sc-61203, NKHC2 siRNA (m): sc-61204, NKHC2 shRNA Plasmid (h): sc-61203-SH, NKHC2 shRNA Plasmid (m): sc-61204-SH, NKHC2 shRNA (h) Lentiviral Particles: sc-61203-V and NKHC2 shRNA (m) Lentiviral Particles: sc-61204-V.

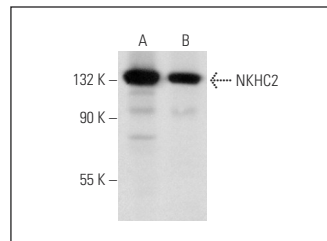
Molecular Weight of NKHC2: 115 kDa.

Positive Controls: mouse brain extract: sc-2253, IMR-32 cell lysate: sc-2409 or AtT-20/D16vF2 whole cell lysate: sc-364367.

## 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



NKHC2 (H-60): sc-134602. Western blot analysis of NKHC2 expression in mouse embryonic brain (A) and mouse brain (B) tissue extracts.

## 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) or our catalog for detailed protocols and support products.



Try **NKHC2 (E-5): sc-374468** or **NKHC2 (B-9): sc-374469**, our highly recommended monoclonal alternatives to NKHC2 (H-60).