

UKHC (H-50): sc-28538

BACKGROUND

The kinesin motor proteins include at least two forms of conventional kinesin encoded by different genes and designated as ubiquitous kinesin, which is expressed in all cells and tissues, or neuronal kinesin, which is expressed exclusively in neural cells. Kinesin is a microtubule associated protein comprised of three different structural domains. A considerable globular N-terminal domain regulates the hydrolysis of ATP and also microtubule binding while central coiled-coil domains promote heavy chain dimerization. Lastly, small globular C-terminal domains interact with kinesin light chains, membranous organelles and vesicles. Expression of ubiquitous kinesin heavy chain, also designated UKHC, is found subcellularly in areas of heavy vesicular trafficking such as the microtubule pathways of neural cells and also the Golgi of non-neural cell types.

CHROMOSOMAL LOCATION

Genetic locus: KIF5B (human) mapping to 10p11.22; Kif5b (mouse) mapping to 18 A1.

SOURCE

UKHC (H-50) is a rabbit polyclonal antibody raised against amino acids 691-740 mapping within an internal region of UKHC 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.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

UKHC (H-50) is recommended for detection of ubiquitous kinesin heavy chain (UKHC) 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), 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).

UKHC (H-50) is also recommended for detection of ubiquitous kinesin heavy chain (UKHC) in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for UKHC siRNA (h): sc-36777, UKHC siRNA (m): sc-36778, UKHC shRNA Plasmid (h): sc-36777-SH, UKHC shRNA Plasmid (m): sc-36778-SH, UKHC shRNA (h) Lentiviral Particles: sc-36777-V and UKHC shRNA (m) Lentiviral Particles: sc-36778-V.

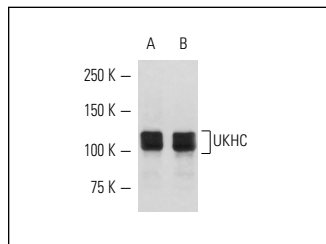
Molecular Weight of UKHC: 120 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

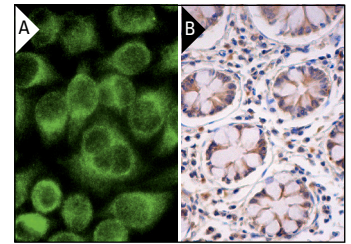
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



UKHC (H-50): sc-28538. Western blot analysis of UKHC expression in Jurkat (A) and HeLa (B) whole cell lysates.



UKHC (H-50): sc-28538. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Cerecedo, D., et al. 2010. Actin filaments and microtubule dual-granule transport in human adhered platelets: the role of α -dystrobrevins. *Br. J. Haematol.* 149: 124-136.
- Cerecedo, D., et al. 2013. Haemostatic role of intermediate filaments in adhered platelets: Importance of the membranous system stability. *J. Cell. Biochem.* 114: 2050-2060.
- Makani, V., et al. 2013. Annexin A1 complex mediates oxytocin vesicle transport. *J. Neuroendocrinol.* 25: 1241-1254.

RESEARCH USE

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

PROTOCOLS

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



Try **UKHC (F-5): sc-133184** or **UKHC (F-9): sc-133185**, our highly recommended monoclonal alternatives to UKHC (H-50).