

UKHC (F-9): sc-133185

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.

REFERENCES

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3. Marks, D.L., et al. 1995. Association of kinesin with the Golgi apparatus in rat hepatocytes. *J. Cell Sci.* 107: 2417-2426.
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CHROMOSOMAL LOCATION

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

SOURCE

UKHC (F-9) is a mouse monoclonal antibody raised against amino acids 691-740 mapping within an internal region of UKHC of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

UKHC (F-9) is recommended for detection of ubiquitous kinesin heavy chain (UKHC) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

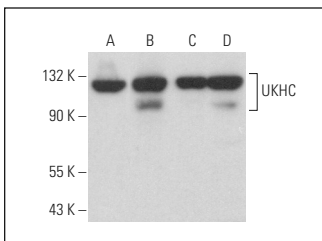
Molecular Weight of UKHC: 120 kDa.

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

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.

DATA



UKHC (F-9): sc-133185. Western blot analysis of UKHC expression in A-431 (A), HeLa (B), Hep G2 (C) and Jurkat (D) whole cell lysates.

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 for detailed protocols and support products.