SANTA CRUZ BIOTECHNOLOGY, INC.

KIF2C (D-15): sc-30277

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Kinesin family member 2c (KIF2C), alternately known as mitotic centromere-associated kinesin (MCAK), is a member of the kinesin-like family of proteins. KIF2C is a cytoplasmic and nuclear protein, present throughout the cell cycle. KIF2C associates with the centromere early in prophase, and disassociates after telophase. KIF2C is abundant in thymus and testis, and present at lower levels in small intestine, the mucosal lining of the colon, and placenta.

REFERENCES

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2. Maney, T., et al. 1998. Mitotic centromere-associated kinesin is important for anaphase chromosome segregation. J. Cell Biol. 3: 787-801.
3. Hunter, A.W., et al. 2003. The kinesin-related protein MCAK is a microtubule depolymerase that forms an ATP-hydrolyzing complex at microtubule ends. Mol. Cell 11: 445-457.
4. Kline-Smith, S.L., et al. 2004. Depletion of centromeric MCAK leads to chromosome congression and segregation defects due to improper kinetochore attachments. Mol. Biol. Cell 15: 1146-1159.
5. Moore, A.T., et al. 2005. MCAK associates with the tips of polymerizing microtubules. J. Cell Biol. 169: 391-397.
6. Manning, A.L., et al. 2007. The kinesin-13 proteins KIF2A, KIF2B, and KIF2C/MCAK have distinct roles during mitosis in human cells. Mol. Biol. Cell 18: 2970-2979.
7. Wordeman, L., et al. 2007. MCAK facilitates chromosome movement by promoting kinetochore microtubule turnover. J. Cell Biol. 179: 869-879.
8. Lee, T., et al. 2008. MCAK associates with EB1. Oncogene 27: 2494-2500.
9. Shimo, A., et al. 2008. Involvement of kinesin family member 2C/mitotic centromere-associated kinesin overexpression in mammary carcinogenesis. Cancer Sci. 99: 62-70.

CHROMOSOMAL LOCATION

Genetic locus: KIF2C (human) mapping to 1p34.1; Kif2c (mouse) mapping to 4 D1.

SOURCE

KIF2C (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of KIF2C 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.

Blocking peptide available for competition studies, sc-30277 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

KIF2C (D-15) is recommended for detection of KIF2C 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).

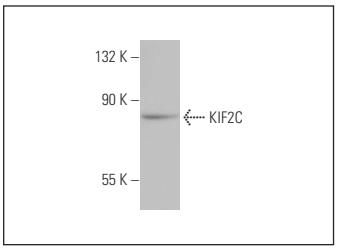
KIF2C (D-15) is also recommended for detection of KIF2C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KIF2C siRNA (h): sc-105596, KIF2C siRNA (m): sc-146476, KIF2C shRNA Plasmid (h): sc-105596-SH, KIF2C shRNA Plasmid (m): sc-146476-SH, KIF2C shRNA (h) Lentiviral Particles: sc-105596-V and KIF2C shRNA (m) Lentiviral Particles: sc-146476-V.

Molecular Weight of KIF2C isoforms: 75/81 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HeLa nuclear extract: sc-2120.

DATA



KIF2C (D-15): sc-30277. Western blot analysis of KIF2C expression in HeLa whole cell lysate.

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 or our catalog for detailed protocols and support products.