SANTA CRUZ BIOTECHNOLOGY, INC.

HURP (M-300): sc-98809

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The Power to Question

BACKGROUND

HURP (hepatoma up-regulated protein), also known as DLGAP5 (disks large-associated protein 5), DLG7 or DLG1, is an 846 amino acid protein that localizes to both the nucleus and the cytoplasm, specifically localizing to spindle poles in mitotic cells. Expressed in testis, colon, bone marrow, placenta and fetal liver, HURP is thought to function as a cell cycle regulator that interacts with Cdc2 p34 and mediates adherens junction assembly and differentiation in epithelial cells. HURP is upregulated in the G_2/M phase of the cell cycle and may play a role in carcinogenesis and tumor transformation via cell cycle control. Upon DNA damage, HURP is phosphorylated by ATM or ATR. Additionally, HURP is subject to ubiquitin-induced proteasomal degradation. Two isoforms of HURP exist due to alternative splicing events.

REFERENCES

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2. Chiu, A.W., et al. 2002. Potential molecular marker for detecting transitional cell carcinoma. Urology 60: 181-185.
3. Huang, Y.L., et al. 2003. Prognostic significance of hepatoma-up-regulated protein expression in patients with urinary bladder transitional cell carcinoma. Anticancer Res. 23: 2729-2733.
4. Silljé, H.H., et al. 2006. HURP is a Ran-importin β-regulated protein that stabilizes kinetochore microtubules in the vicinity of chromosomes. Curr. Biol. 16: 731-742.
5. Koffa, M.D., et al. 2006. HURP is part of a Ran-dependent complex involved in spindle formation. Curr. Biol. 16: 743-754.
6. Wilde, A. 2006. "HURP on" we're off to the kinetochore! J. Cell Biol. 173: 829-831.
7. Wong, J. and Fang, G. 2006. HURP controls spindle dynamics to promote proper interkinetochore tension and efficient kinetochore capture. J. Cell Biol. 173: 879-891.
8. Santarella, R.A., et al. 2007. HURP wraps microtubule ends with an additional tubulin sheet that has a novel conformation of tubulin. J. Mol. Biol. 365: 1587-1595.
9. Gudmundsson, K.O., et al. 2007. Gene expression analysis of hematopoietic progenitor cells identifies Dlg7 as a potential stem cell gene. Stem Cells 25: 1498-1506.

CHROMOSOMAL LOCATION

Genetic locus: Dlg7 (mouse) mapping to 14 C1.

SOURCE

HURP (M-300) is a rabbit polyclonal antibody raised against amino acids 194-480 mapping within an internal region of HURP of mouse origin.

PRODUCT

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

APPLICATIONS

HURP (M-300) is recommended for detection of HURP of mouse 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).

Suitable for use as control antibody for HURP siRNA (m): sc-75317, HURP shRNA Plasmid (m): sc-75317-SH and HURP shRNA (m) Lentiviral Particles: sc-75317-V.

Molecular Weight of HURP: 95 kDa.

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.

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 or our catalog for detailed protocols and support products.