



HURP (h): 293T Lysate: sc-111164

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 G₂/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

1. Bassal, S., et al. 2001. Characterization of a novel human cell-cycle-regulated homologue of *Drosophila* DLG1. *Genomics* 77: 5-7.
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: DLGAP5 (human) mapping to 14q22.3.

PRODUCT

HURP (h): 293T Lysate represents a lysate of human HURP transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

HURP (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive HURP antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.