

HURP (D-12): sc-376760

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., et al. 2006. HURP controls spindle dynamics to promote proper interkinetochore tension and efficient kinetochore capture. *J. Cell Biol.* 173: 879-891.

CHROMOSOMAL LOCATION

Genetic locus: DLGAP5 (human) mapping to 14q22.3.

SOURCE

HURP (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 417-451 within an internal region of HURP of human origin.

PRODUCT

Each vial contains 200 μ g IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376760 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

HURP (D-12) is recommended for detection of HURP of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for HURP siRNA (h): sc-75316, HURP shRNA Plasmid (h): sc-75316-SH and HURP shRNA (h) Lentiviral Particles: sc-75316-V.

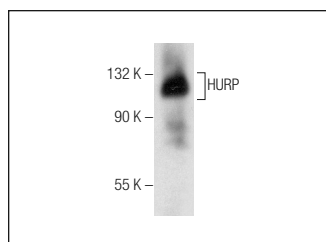
Molecular Weight of HURP: 118 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Caco-2 cell lysate: sc-2262 or K-562 nuclear extract: sc-2130.

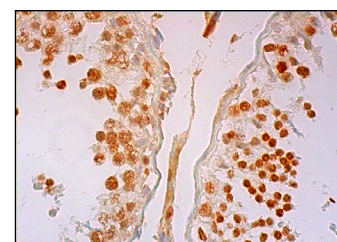
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



HURP (D-12): sc-376760. Western blot analysis of HURP expression in K-562 nuclear extract.



HURP (D-12): sc-376760. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

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.