SANTA CRUZ BIOTECHNOLOGY, INC.

# HURP siRNA (m): sc-75317

## 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


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.


## CHROMOSOMAL LOCATION

Genetic locus: Dlgap5 (mouse) mapping to 14 C1.

## PRODUCT

HURP siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HURP shRNA Plasmid (m): sc-75317-SH and HURP shRNA (m) Lentiviral Particles: sc-75317-V as alternate gene silencing products.

For independent verification of HURP (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-75317A, sc-75317B and sc-75317C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

HURP siRNA (m) is recommended for the inhibition of HURP expression in mouse cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## GENE EXPRESSION MONITORING

HURP (E-7): sc-377004 is recommended as a control antibody for monitoring of HURP gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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) 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor HURP gene expression knockdown using RT-PCR Primer: HURP (m)-PR: sc-75317-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## 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.