

HURP (E-7): sc-377004

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.

CHROMOSOMAL LOCATION

Genetic locus: DLGAP5 (human) mapping to 14q22.3; Dlgap5 (mouse) mapping to 14 C1.

SOURCE

HURP (E-7) 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 IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HURP (E-7) is available conjugated to agarose (sc-377004 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377004 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377004 PE), fluorescein (sc-377004 FITC), Alexa Fluor[®] 488 (sc-377004 AF488), Alexa Fluor[®] 546 (sc-377004 AF546), Alexa Fluor[®] 594 (sc-377004 AF594) or Alexa Fluor[®] 647 (sc-377004 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377004 AF680) or Alexa Fluor[®] 790 (sc-377004 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377004 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

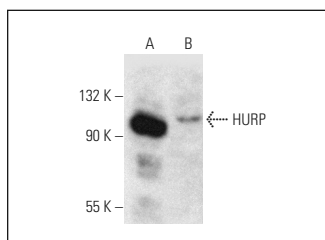
HURP (E-7) is recommended for detection of HURP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 siRNA (m): sc-75317, HURP shRNA Plasmid (h): sc-75316-SH, HURP shRNA Plasmid (m): sc-75317-SH, HURP shRNA (h) Lentiviral Particles: sc-75316-V and HURP shRNA (m) Lentiviral Particles: sc-75317-V.

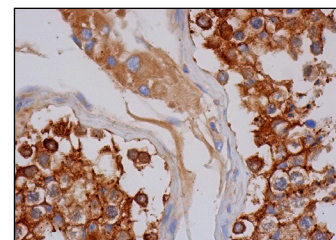
Molecular Weight of HURP: 118 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MCF7 whole cell lysate: sc-2206 or F9 cell lysate: sc-2245.

DATA



HURP (E-7): sc-377004. Western blot analysis of HURP expression in K-562 (A) and F9 (B) whole cell lysates.



HURP (E-7): sc-377004. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and membrane staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

SELECT PRODUCT CITATIONS

1. Vallejo, A., et al. 2017. An integrative approach unveils FOSL1 as an oncogene vulnerability in KRAS-driven lung and pancreatic cancer. *Nat. Commun.* 8: 14294.
2. Román, M., et al. 2019. Inhibitor of differentiation-1 sustains mutant KRAS-driven progression, maintenance, and metastasis of lung adenocarcinoma via regulation of a FOSL1 network. *Cancer Res.* 79: 625-638.
3. Yamamoto, S., et al. 2019. Identification of new octamer transcription factor 1-target genes upregulated in castration-resistant prostate cancer. *Cancer Sci.* 110: 3476-3485.

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.