

# Hugl-1 (A-2): sc-136992

## BACKGROUND

Hugl-1 is a cortical cytoskeleton protein involved in the regulation of mitotic spindle orientation, differentiation, proliferation and tissue organization of neuroepithelial cells. It localizes to the cytoplasm and is found in a complex involved in maintaining cell polarity and epithelial integrity. Hugl-1 is associated with nonmuscle Myosin II heavy chain and interacts with PRKCI/aPKC, PARD6B/Par-6, PARD6A and STX4A. The Hugl-1 protein is expressed in kidney, brain and muscle. Expression of Hugl-1 increases cell adhesion and decreases cell migration. Hugl-1 functions as a tumor suppressor in humans, and loss of Hugl-1 expression contributes to colorectal cancer and melanoma progression. LLGL1, the gene encoding for Hugl-1, has significant homology to the *Drosophila* tumor suppressor gene, *l(2)gl*, which encodes the protein Lgl. Like Hugl-1, Lgl is also a cortical cytoskeleton protein involved in maintaining cell polarity and epithelial integrity.

## REFERENCES

1. Strand, D., et al. 1995. A human homologue of the *Drosophila* tumour suppressor gene *l(2)gl* maps to 17p11.2-12 and codes for a cytoskeletal protein that associates with nonmuscle Myosin II heavy chain. *Oncogene* 11: 291-301.
2. Koyama, K., et al. 1996. The human homologue of the murine *Lglh* gene (LLGL) maps within the Smith-Magenis syndrome region in 17p11.2. *Cytogenet. Cell Genet.* 72: 78-82.
3. Yamanaka, T., et al. 2003. Mammalian Lgl forms a protein complex with Par-6 and aPKC independently of Par-3 to regulate epithelial cell polarity. *Curr. Biol.* 13: 734-743.
4. Grifoni, D., et al. 2004. The human protein Hugl-1 substitutes for *Drosophila* lethal giant larvae tumour suppressor function *in vivo*. *Oncogene* 23: 8688-8694.
5. Huber, M.A., et al. 2005. Molecular requirements for epithelial-mesenchymal transition during tumor progression. *Curr. Opin. Cell Biol.* 17: 548-558.
6. Schimanski, C.C., et al. 2005. Reduced expression of Hugl-1, the human homologue of *Drosophila* tumour suppressor gene *lgl*, contributes to progression of colorectal cancer. *Oncogene* 24: 3100-3109.
7. Kuphal, S., et al. 2006. Expression of Hugl-1 is strongly reduced in malignant melanoma. *Oncogene* 25: 103-110.

## CHROMOSOMAL LOCATION

Genetic locus: LLGL1 (human) mapping to 17p11.2.

## SOURCE

Hugl-1 (A-2) is a mouse monoclonal antibody raised against amino acids 937-1062 mapping at the C-terminus of Hugl-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Hugl-1 (A-2) is recommended for detection of Hugl-1 of human origin by Western Blotting (starting dilution 1:100, 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 Hugl-1 siRNA (h): sc-60818, Hugl-1 shRNA Plasmid (h): sc-60818-SH and Hugl-1 shRNA (h) Lentiviral Particles: sc-60818-V.

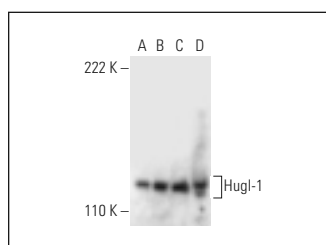
Molecular Weight of Hugl-1: 115 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, DU 145 cell lysate: sc-2268 or IMR-32 cell lysate: sc-2409.

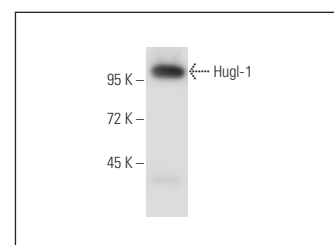
## RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Hugl-1 (A-2): sc-136992. Western blot analysis of Hugl-1 expression in HeLa (A) and IMR-32 (B) nuclear extracts and DU 145 (C) and MCF7 (D) whole cell lysates.



Hugl-1 (A-2): sc-136992. Western blot analysis of Hugl-1 expression in IMR-32 whole cell lysate.

## 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](http://www.scbt.com) for detailed protocols and support products.