

Hugl-1 (G-16): sc-49992

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., Unger, S., Corvi, R., Hartenstein, K., Schenkel, H., Kalmes, A., Merdes, G., Neumann, B., Krieg-Schneider, F. and Coy, J.F. 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 non-muscle Myosin II heavy chain. *Oncogene* 11: 291-301.
2. Koyama, K., Fukushima, Y., Inazawa, J., Tomotsune, D., Takahashi, N. and Nakamura, Y. 1996. The human homologue of the murine *Llglh* gene (LLGL) maps within the Smith-Magenis syndrome region in 17p11.2. *Cytogenet. Cell Genet.* 72: 78-82.
3. Yamanaka, T., Horikoshi, Y., Sugiyama, Y., Ishiyama, C., Suzuki, A., Hirose, T., Iwamatsu, A., Shinohara, A. and Ohno, S. 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., Garoia, F., Schimanski, C.C., Schmitz, G., Laurenti, E., Galle, P.R., Pession, A., Cavicchi, S. and Strand, D. 2004. The human protein Hugl-1 substitutes for *Drosophila* lethal giant larvae tumour suppressor function *in vivo*. *Oncogene* 23: 8688-8694.
5. Schimanski, C.C., Schmitz, G., Kashyap, A., Bosserhoff, A.K., Bataille, F., Schäfer, S.C., Lehr, H.A., Berger, M.R., Galle, P.R., Strand, S. and Strand, D. 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.
6. Huber, M.A., Kraut, N. and Beug, H. 2005. Molecular requirements for epithelial-mesenchymal transition during tumor progression. *Curr. Opin. Cell Biol.* 17: 548-558.

CHROMOSOMAL LOCATION

Genetic locus: LLGL1 (human) mapping to 17p11.2; *Llgl1* (mouse) mapping to 11 B2.

SOURCE

Hugl-1 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Hugl-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49992 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Hugl-1 (G-16) is recommended for detection of Hugl-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Hugl-1 (G-16) is also recommended for detection of Hugl-1 in additional species, including equine and bovine.

Suitable for use as control antibody for Hugl-1 siRNA (h): sc-60818, Hugl-1 siRNA (m): sc-60819, Hugl-1 shRNA Plasmid (h): sc-60818-SH, Hugl-1 shRNA Plasmid (m): sc-60819-SH, Hugl-1 shRNA (h) Lentiviral Particles: sc-60818-V and Hugl-1 shRNA (m) Lentiviral Particles: sc-60819-V.

Molecular Weight of Hugl-1: 115 kDa.

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.


 MONOS
 Satisfation
 Guaranteed

Try **Hugl-1 (B-6): sc-136993** or **Hugl-1 (A-2): sc-136992**, our highly recommended monoclonal alternatives to Hugl-1 (G-16).