

Hugl-1 (H-126): sc-67243

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 *Llglh* 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; *Llgl1* (mouse) mapping to 11 B2.

SOURCE

Hugl-1 (H-126) is a rabbit polyclonal 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 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Hugl-1 (H-126) is recommended for detection of Hugl-1 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, 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).

Hugl-1 (H-126) is also recommended for detection of Hugl-1 in additional species, including canine.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
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Guaranteed

Try **Hugl-1 (B-6): sc-136993** or **Hugl-1 (A-2): sc-136992**, our highly recommended monoclonal alternatives to Hugl-1 (H-126).