

# Hugl-1 (B-6): sc-136993

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: LLGL1 (human) mapping to 17p11.2; Lgl1 (mouse) mapping to 11 B2.

## SOURCE

Hugl-1 (B-6) 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.

Hugl-1 (B-6) is available conjugated to agarose (sc-136993 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136993 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136993 PE), fluorescein (sc-136993 FITC), Alexa Fluor® 488 (sc-136993 AF488), Alexa Fluor® 546 (sc-136993 AF546), Alexa Fluor® 594 (sc-136993 AF594) or Alexa Fluor® 647 (sc-136993 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-136993 AF680) or Alexa Fluor® 790 (sc-136993 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Hugl-1 (B-6) is recommended for detection of Hugl-1 of mouse, rat and 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 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.

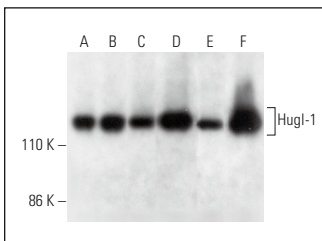
Positive Controls: HeLa nuclear extract: sc-2120, MCF7 whole cell lysate: sc-2206 or KNRK whole cell lysate: sc-2214.

## RECOMMENDED SUPPORT REAGENTS

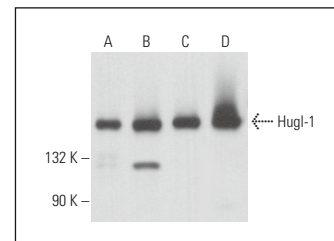
To ensure optimal results, the following support reagents are recommended:

- 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 (B-6): sc-136993. Western blot analysis of Hugl-1 expression in HeLa (A) and IMR-32 (B) nuclear extracts and HCT-116 (C), DU 145 (D), MCF7 (E) and SH-SY5Y (F) whole cell lysates.



Hugl-1 (B-6): sc-136993. Western blot analysis of Hugl-1 expression in IMR-32 nuclear extract (A) and A-673 (B), BC3H1 (C) and KNRK (D) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Whitby, S., et al. 2018. The endometrial polarity paradox: differential regulation of polarity within secretory-phase human endometrium. *Endocrinology* 159: 506-518.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.