

hyccin (D-15): sc-138795

BACKGROUND

Hyccin, also known as FAM126A, HCC, HLD5, HYCC1 or DRCTNNB1A, is a 521 amino acid cytoplasmic protein that is widely expressed with highest levels found in heart, brain, placenta, spleen and testis. Belonging to the FAM126 family, hyccin may play a role in the β -catenin/Lef signaling pathway. Hyccin is likely involved in the process of myelination of the central and peripheral nervous system. Defects in the gene encoding hyccin are the cause of leukodystrophy hypomyelinating type 5 (HLD5), which is characterized by congenital cataract, progressive neurologic impairment and diffuse myelin deficiency. Individuals affected by HLD5 experience progressive pyramidal and cerebellar dysfunction along with muscle weakness in the lower limbs. Hyccin exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 7.

REFERENCES

1. Kawasoe, T., et al. 2000. Isolation and characterization of a novel human gene, DRCTNNB1A, the expression of which is downregulated by β -catenin. *Cancer Res.* 60: 3354-3358.
2. Zara, F., et al. 2006. Deficiency of hyccin, a newly identified membrane protein, causes hypomyelination and congenital cataract. *Nat. Genet.* 38: 1111-1113.
3. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610531. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Biancheri, R., et al. 2007. Phenotypic characterization of hypomyelination and congenital cataract. *Ann. Neurol.* 62: 121-127.
5. Rossi, A., et al. 2008. Hypomyelination and congenital cataract: neuro-imaging features of a novel inherited white matter disorder. *AJNR Am. J. Neuroradiol.* 29: 301-305.
6. Bizzi, A., et al. 2008. Classification of childhood white matter disorders using proton MR spectroscopic imaging. *AJNR Am. J. Neuroradiol.* 29: 1270-1275.
7. Ugur, S.A. and Tolun, A. 2008. A deletion in DRCTNNB1A associated with hypomyelination and juvenile onset cataract. *Eur. J. Hum. Genet.* 16: 261-264.

CHROMOSOMAL LOCATION

Genetic locus: FAM126A (human) mapping to 7p15.3; Fam126a (mouse) mapping to 5 A3.

SOURCE

hyccin (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of hyccin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-138795 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hyccin (D-15) is recommended for detection of hyccin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

hyccin (D-15) is also recommended for detection of hyccin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for hyccin siRNA (h): sc-89596, hyccin siRNA (m): sc-140741, hyccin shRNA Plasmid (h): sc-89596-SH, hyccin shRNA Plasmid (m): sc-140741-SH, hyccin shRNA (h) Lentiviral Particles: sc-89596-V and hyccin shRNA (m) Lentiviral Particles: sc-140741-V.

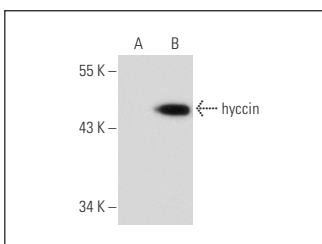
Molecular Weight of hyccin: 58 kDa.

Positive Controls: hyccin (h2): 293 Lysate: sc-170903.

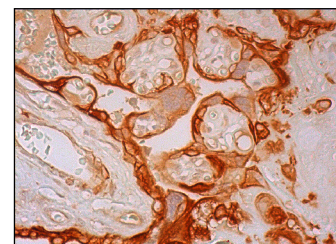
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



hyccin (D-15): sc-138795. Western blot analysis of hyccin expression in non-transfected: sc-110760 (A) and human hyccin transfected: sc-170903 (B) 293 whole cell lysates.



hyccin (D-15): sc-138795. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of trophoblastic cells.

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.