

# HYDIN (E-12): sc-109286

## BACKGROUND

HYDIN (hydrocephalus inducing homolog), also known as HYDIN1 or HYDIN2, is a 5,120 amino acid protein that exists as 7 alternatively spliced isoforms. Expressed in the ciliated ependymal cell layer of heart ventricle, HYDIN is also found in ciliated epithelial cells of developing spermatocytes, oviduct and bronchi. The HYDIN gene maps to human chromosome 16q22.2 and is considered a candidate for an autosomal recessive form of congenital hydrocephalus. Human chromosome 16 encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

## REFERENCES

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- Bomont, P., et al. 2000. The gene encoding Gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
- Davy, B.E. and Robinson, M.L. 2003. Congenital hydrocephalus in HY3 mice is caused by a frameshift mutation in Hydin, a large novel gene. *Hum. Mol. Genet.* 12: 1163-1170.
- Mathew, C.G. and Lewis, C.M. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13: R161-R168.
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- Smith, E.F. 2007. HYDIN seek: finding a function in ciliary motility. *J. Cell Biol.* 176: 403-404.
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## CHROMOSOMAL LOCATION

Genetic locus: HYDIN (human) mapping to 16q22.2; Hydin (mouse) mapping to 8 E1.

## SOURCE

HYDIN (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HYDIN 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-109286 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

HYDIN (E-12) is recommended for detection of HYDIN of mouse, rat and human 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); non cross-reactive with HYDIN-2.

HYDIN (E-12) is also recommended for detection of HYDIN in additional species, including canine.

Suitable for use as control antibody for HYDIN siRNA (h): sc-93504, HYDIN siRNA (m): sc-146119, HYDIN shRNA Plasmid (h): sc-93504-SH, HYDIN shRNA Plasmid (m): sc-146119-SH, HYDIN shRNA (h) Lentiviral Particles: sc-93504-V and HYDIN shRNA (m) Lentiviral Particles: sc-146119-V.

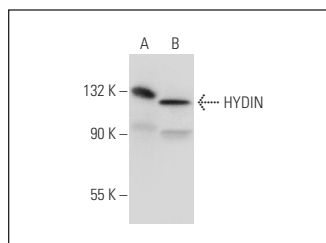
Molecular Weight of HYDIN isoforms: 575/123/137/237/114/80/84 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136 or Hep G2 cell lysate: sc-2227.

## 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.

## DATA



HYDIN (E-12): sc-109286. Western blot analysis of HYDIN expression in HEK293 (A) and Hep G2 (B) whole cell lysates.

## 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.