

DYDC1 (K-14): sc-164242

BACKGROUND

The Dumpy-30 (DPY-30) protein was first described in *C. elegans*, in which it is involved in dosage compensation of sex chromosomes. Conserved from yeast to humans, the DPY-30 family is involved in gene expression and chromatin modification, specifically histone methylation. DPY-30 and closely related proteins contain a short motif that is related to the dimerization motif in the regulatory subunit of protein kinase A (PKA), which consists of two α -helices that form a four-helix bundle during dimerization. As a member of the DPY-30 family, DYDC1 (DPY30 domain-containing protein 1), also known as DPY30D1 and RSD9, is a 177 amino acid protein that binds to Endophilin III and plays a crucial role during acrosome biogenesis. DYDC1 is specifically expressed in brain and testis and accumulates in the acrosome area during spermatogenesis. Knockdown of DYDC1 mRNA results in disruption of acrosome formation and spermatid differentiation.

REFERENCES

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- Vardanyan, A., Atanesyan, L., Egli, D., Raja, S.J., Steinmann-Zwicky, M., Renkawitz-Pohl, R., Georgiev, O. and Schaffner, W. 2008. Dumpy-30 family members as determinants of male fertility and interaction partners of metal-responsive transcription factor 1 (MTF-1) in *Drosophila*. *BMC Dev. Biol.* 8: 68.

CHROMOSOMAL LOCATION

Genetic locus: DYDC1 (human) mapping to 10q23.1; Dydc1 (mouse) mapping to 14 B.

SOURCE

DYDC1 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DYDC1 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-164242 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DYDC1 (K-14) is recommended for detection of DYDC1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with DYDC2.

DYDC1 (K-14) is also recommended for detection of DYDC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DYDC1 siRNA (h): sc-90589, DYDC1 siRNA (m): sc-143200, DYDC1 shRNA Plasmid (h): sc-90589-SH, DYDC1 shRNA Plasmid (m): sc-143200-SH, DYDC1 shRNA (h) Lentiviral Particles: sc-90589-V and DYDC1 shRNA (m) Lentiviral Particles: sc-143200-V.

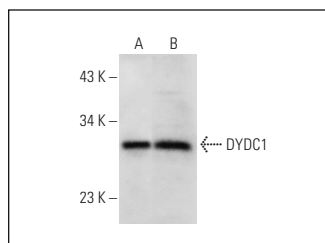
Molecular Weight of DYDC1: 21 kDa.

Positive Controls: rat testis extract: sc-2400 or U-251-MG whole cell lysate: sc-364176.

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



DYDC1 (K-14): sc-164242. Western blot analysis of DYDC1 expression in rat testis tissue extract (A) and U-251-MG whole cell lysate (B).

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.