

# CDYL (E-16): sc-34146

## BACKGROUND

CDY, a gene family expressed exclusively in the testis, localizes to a region of the Y chromosome frequently deleted in infertile males. CDY protein contains two functional domains: an N-terminal chromodomain, possibly functioning in heterochromatin interactions; and a C-terminal domain which resembles enoyl-CoA-isomerase, a protein involved in fatty acid oxidation. Furthermore, CDY acts as a histone acetyltransferase, with strong preference for Histone H4, a process required for the histone to proamine transition in spermatogenesis, consistent with the association with male infertility. Chromodomain Y-like protein (CDYL) is a related ubiquitous nuclear protein expressed at moderate levels in most tissues. The gene encoding for the CDYL protein localizes to chromosome 6p25.1.

## REFERENCES

- Lahn, B.T., et al. 1999. Retroposition of autosomal mRNA yielded testis-specific gene family on human Y chromosome. *Nat. Genet.* 21: 429-433.
- Wimmer, R., et al. 2002. Comparative mapping of CDY and DAZ in higher primates. *Cytogenet. Genome Res.* 96: 287-289.
- Lahn, B.T., et al. 2002. Previously uncharacterized histone acetyltransferases implicated in mammalian spermatogenesis. *Proc. Natl. Acad. Sci. USA* 99: 8707-8712.
- Kostova, E., et al. 2002. Identification and characterization of the cynomolgus monkey chromodomain gene cynCDY, an orthologue of the human CDY gene family. *Mol. Hum. Reprod.* 8: 702-709.
- Kleiman, S.E., et al. 2003. Members of the CDY family have different expression patterns: CDY1 transcripts have the best correlation with complete spermatogenesis. *Hum. Genet.* 113: 486-492.
- Dorus, S., et al. 2003. The CDY-related gene family: coordinated evolution in copy number, expression profile and protein sequence. *Hum. Mol. Genet.* 12: 1643-1650.

## CHROMOSOMAL LOCATION

Genetic locus: CDYL (human) mapping to 6p25.1, CDY (human) mapping to Yq11.23; Cdy1 (mouse) mapping to 13 A3.3.

## SOURCE

CDYL (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CDYL 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-34146 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

CDYL (E-16) is recommended for detection of CDYL of mouse, rat and human origin and, to a lesser extent, CDY of 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).

CDYL (E-16) is also recommended for detection of CDYL and CDY in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for CDYL siRNA (m): sc-45272, CDYL shRNA Plasmid (m): sc-45272-SH and CDYL shRNA (m) Lentiviral Particles: sc-45272-V.

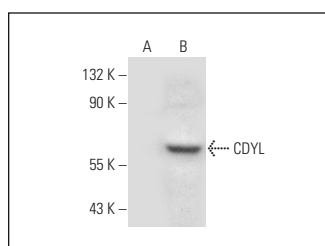
Molecular Weight of CDYL: 66 kDa.

Positive Controls: CDYL (h): 293T Lysate: sc-112015.

## 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



CDYL (E-16): sc-34146. Western blot analysis of CDYL expression in non-transfected: sc-117752 (A) and human CDYL transfected: sc-112015 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.