SANTA CRUZ BIOTECHNOLOGY, INC.

CDYL (F-15): sc-34147

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 also 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

1. Lahn, B.T., et al. 1999. Retroposition of autosomal mRNA yielded testis-specific gene family on human Y chromosome. Nat. Genet. 21: 429-433.
2. Wimmer, R., et al. 2002. Comparative mapping of CDY and DAZ in higher primates. Cytogenet. Genome Res. 96: 287-289.
3. Lahn, B.T., et al. 2002. Previously uncharacterized histone acetyltransferases implicated in mammalian spermatogenesis. Proc. Natl. Acad. Sci. USA 99: 8707-8712.
4. 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.
5. 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.
6. 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; Cdyl (mouse) mapping to 13 A3.3.

SOURCE

CDYL (F-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-34147 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 (F-15) is recommended for detection of CDYL of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (F-15) is also recommended for detection of CDYL in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CDYL siRNA (h): sc-45271, CDYL siRNA (m): sc-45272, CDYL shRNA Plasmid (h): sc-45271-SH, CDYL shRNA Plasmid (m): sc-45272-SH, CDYL shRNA (h) Lentiviral Particles: sc-45271-V and CDYL shRNA (m) Lentiviral Particles: sc-45272-V.

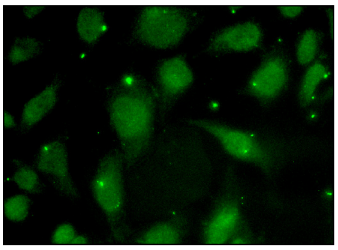
Molecular Weight of CDYL: 66 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, NTERA-2 cl. D1 whole cell lysate: sc-364181 or rat testis extract: sc-2400.

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) 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 (F-15): sc-34147. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.