

CDY (N-16): sc-28466

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.

REFERENCES

- Lahn, B.T., Tang, Z.L., Zhou, J., Barndt, R.J., Parvinen, M., Allis, C.D. and Page, D.C. 2002. Previously uncharacterized histone acetyltransferases implicated in mammalian spermatogenesis. *Proc. Natl. Acad. Sci. USA* 99: 8707-8712.
- Wimmer, R., Kuhl, H., Rottger, S. and Schempp, W. 2002. Comparative mapping of CDY and DAZ in higher primates. *Cytogenet. Genome Res.* 96: 287-289.
- Kostova, E., Rottger, S., Schempp, W. and Gromoll, J. 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., Yogev, L., Hauser, R., Botchan, A., Bar-Shira Maymon, B., Schreiber, L., Paz, G. and Yavetz, H. 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., Gilbert, S.L., Forster, M.L., Barndt, R.J. and Lahn, B.T. 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: CDY1 (human) mapping to Yq11.22.

SOURCE

CDY (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CDY 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-28466 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

CDY (N-16) is recommended for detection of CDY of 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).

Suitable for use as control antibody for CDY siRNA (h): sc-91561, CDY shRNA Plasmid (h): sc-91561-SH and CDY shRNA (h) Lentiviral Particles: sc-91561-V.

Positive Controls: human testis tissue.

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.

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.