SANTA CRUZ BIOTECHNOLOGY, INC.

SMYD4 (Ac-10): sc-517360

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The SMYD (SET and MYND domain-containing) family of proteins, designated SMYD1, SMYD2, SMYD3 and SMYD4, play a role in transcriptional regulation and may interact with the HDAC family of histone deacetylases. Members of the SMYD family contain MYND (Myeloid translocation protein 8 (MTG8/ETO), Nervy protein and Deaf-1) and SET domains through which protein-protein interactions and transcriptional-associated activities are conferred. SMYD4 (SET and MYND domain-containing protein 4), also known as ZMYND21, is an 804 amino acid protein that contains one SET domain and one MYND-type zinc finger.

REFERENCES

1. Jenuwein, T., et al. 1998. SET domain proteins modulate chromatin domains in eu- and heterochromatin. Cell. Mol. Life Sci. 54: 80-93.
2. Gottlieb, P.D., et al. 2002. Bop encodes a muscle-restricted protein containing MYND and SET domains and is essential for cardiac differentiation and morphogenesis. Nat. Genet. 31: 25-32.
3. Hamamoto, R., et al. 2004. SMYD3 encodes a histone methyltransferase involved in the proliferation of cancer cells. Nat. Cell Biol. 6: 731-740.
4. Brandenberger, R., et al. 2004. Transcriptome characterization elucidates signaling networks that control human ES cell growth and differentiation. Nat. Biotechnol. 22: 707-716.
5. Kageyama, S., et al. 2007. Expression of histone methylases and demethylases during preimplantation development in mice. J. Mammalian Ova Res. 24: 126-131.

CHROMOSOMAL LOCATION

Genetic locus: SMYD4 (human) mapping to 17p13.3.

SOURCE

SMYD4 (Ac-10) is a mouse monoclonal antibody raised against a recombinant protein corresponding to SMYD4 of human origin.

PRODUCT

Each vial contains 100 µg/ml containing IgG_1 with < 0.1% sodium azide.

APPLICATIONS

SMYD4 (Ac-10) is recommended for detection of SMYD4 of human origin by Western Blotting (starting dilution: to be determined by researcher, dilution range 1:100-1:5000).

Suitable for use as control antibody for SMYD4 siRNA (h): sc-94235, SMYD4 shRNA Plasmid (h): sc-94235-SH and SMYD4 shRNA (h) Lentiviral Particles: sc-94235-V.

Molecular Weight of SMYD4: 89 kDa.

PROTOCOLS

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

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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