



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

SMYD3 (h2): 293T Lysate: sc-173215

BACKGROUND

SET and MYND domain-containing 3 (SMYD3), a 428 amino acid protein, is a member of an RNA polymerase complex and plays a role in transcriptional regulation. SMYD3 methylates Lys 4 of Histone H3, a specific tag for epigenetic transcriptional activation. The SMYD3 protein contains an N-terminal MYND-type zinc finger domain, followed by a SET domain, which shows methyltransferase activity. The presence of the heat shock protein HSP 90 α greatly enhances the methyltransferase activity of SMYD3. SMYD3 is expressed in testis and skeletal muscles and is overexpressed in a majority of colorectal carcinomas (CRCs), hepatocellular carcinomas (HCCs) and breast carcinomas (BCs). Inhibition of SMYD3 is a potential chemotherapeutic strategy.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608783. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Hamamoto, R., Furukawa, Y., Morita, M., Iimura, Y., Silva, F.P., Li, M., Yagyu, R. and Nakamura, Y. 2004. SMYD3 encodes a histone methyltransferase involved in the proliferation of cancer cells. *Nat. Cell Biol.* 6: 731-740.
3. Ruden, D.M., Xiao, L., Garfinkel, M.D. and Lu, X. 2005. HSP 90 and environmental impacts on epigenetic states: a model for the trans-generational effects of diethylstilbestrol on uterine development and cancer. *Hum. Mol. Genet.* 14: R149-155.
4. Zhou, Z., Ren, X., Huang, X., Lu, L., Xu, M., Yin, L., Li, J. and Sha, J. 2005. SMYD3-NY, a novel SMYD3 mRNA transcript variant, may have a role in human spermatogenesis. *Ann. Clin. Lab. Sci.* 35: 270-277.
5. Tsuge, M., Hamamoto, R., Silva, F.P., Ohnishi, Y., Chayama, K., Kamatani, N., Furukawa, Y. and Nakamura, Y. 2005. A variable number of tandem repeats polymorphism in an E2F-1 binding element in the 5' flanking region of SMYD3 is a risk factor for human cancers. *Nat. Genet.* 37: 1104-1107.
6. Hamamoto, R., Silva, F.P., Tsuge, M., Nishidate, T., Katagiri, T., Nakamura, Y. and Furukawa, Y. 2006. Enhanced SMYD3 expression is essential for the growth of breast cancer cells. *Cancer Sci.* 97: 113-118.

CHROMOSOMAL LOCATION

Genetic locus: SMYD3 (human) mapping to 1q44.

PRODUCT

SMYD3 (h2): 293T Lysate represents a lysate of human SMYD3 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

SMYD3 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive SMYD3 antibodies. Recommended use: 10-20 μ l per lane.

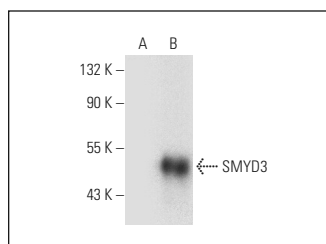
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SMYD3 (C-3): sc-398085 is recommended as a positive control antibody for Western Blot analysis of enhanced human SMYD3 expression in SMYD3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



SMYD3 (C-3): sc-398085. Western blot analysis of SMYD3 expression in non-transfected: sc-117752 (A) and human SMYD3 transfected: sc-173215 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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