

3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

# **Product Information**

SMYD2, GST-tagged, human recombinant, expressed in *Sf*9 cells

Catalog Number **SRP5257** Storage Temperature –70 °C

Synonyms: KMT3C, HSKM-B, ZMYND14

## **Product Description**

SMYD2 (also known as SET and MYND domain-containing protein 2) is a member of the SMYD family of protein methyltransferases. SMYD2 is also known as lysine methyltransferase protein 3C (KMT3C). SMYD2 functions to repress transcription by interacting with the Sin3A histone deacetylase complex and performs methylation of Lys<sup>36</sup> in histone H3.<sup>1</sup> The exogenous expression of SMYD2 in mouse fibroblasts decreases cell growth. SMYD2 also functions as a putative oncogene by methylating p53 and repressing its tumor suppressive function.<sup>2</sup>

Recombinant full-length human SMYD2 was expressed by baculovirus in *Sf*9 insect cells using an N-terminal GST-tag. The gene accession number is BC049367. It is supplied in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

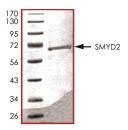
Molecular mass: ~70 kDa

The enzymatic activity of this product has not been determined.

Figure 1.

SDS-PAGE Gel of Typical Lot:

≥70% (SDS-PAGE, densitometry)



#### **Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Storage/Stability

The product ships on dry ice and storage at -70 °C is recommended. After opening, aliquot into smaller quantities and store at -70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

### References

- Brown, M.A. et al., Identification and characterization of Smyd2: a split SET/MYND domain-containing histone H3 lysine 36-specific methyltransferase that interacts with the Sin3 histone deacetylase complex. Molec. Cancer, 5, 26 (2006).
- 2. Huang, J. et.al., Repression of p53 activity by Smyd2-mediated methylation. Nature, **444**, 629-632 (2006).

RC,MAM 10/12-1