SMYD3, Recombinant Human

Catalog No. 15-1007
Lot No. 14170001
Pack Size 25 µg

Type	HMT	**Expressed In**	*E. coli*
Mol. Wgt.	68 kDa	**Epitope Tag**	GST

Product Description:

Recombinant full-length human SMYD3 protein, (SET and MYND domain-containing protein 3, ZMYND1, ZNFN3A1, accession Q9H7B4), containing an N-terminal GST tag, expressed in *E. coli.* SMYD3 is a protein lysine methyltransferase that has been shown to catalyze mono-, di-, and tri-methylation of histone H4 at lysine 5 by multiple independent approaches, including mass spectrometry. SMYD3 levels are up-regulated in a large number of tumors, including liver, breast and rectal carcinomas. SMYD3 overexpression promotes the proliferation of cancer cells through the methylation of MAP3K2 at lysine 260.

Formulation:

Recombinant GST-SMYD3 (1 µg/µl) in 100mM Tris pH 8.0, 10 mM glutathione and 10% glycerol.

Storage and Stability:

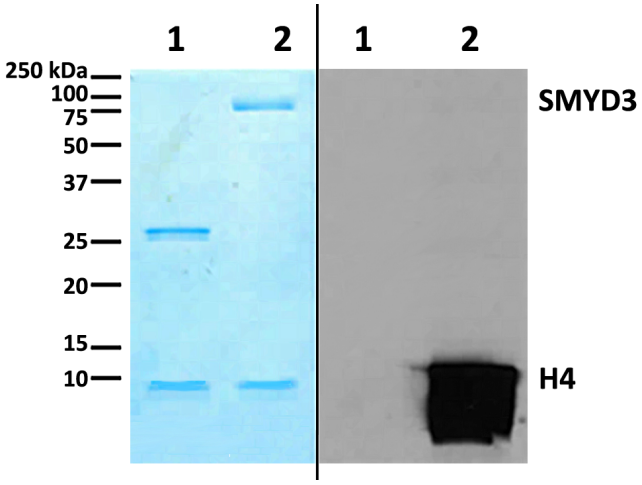
Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

Application Notes:

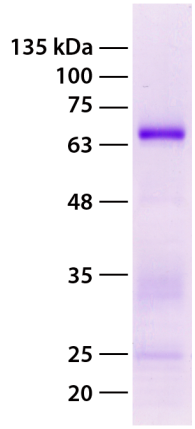
Recombinant SMYD3, human is useful for histone H4 methylation experiments, enzyme kinetics and inhibitor screening. Use of 1-3 µg SMYD3 per reaction with recombinant histone H4, MAP3K2 or nucleosomes as a substrate is recommended.

References:

Peserico A et al (2015). *J Cell Pysiol* in press
Mazur PK et al (2014) *Nature* 510: 283-287.
Van Aller GS et al (2012) *Epigenetics* 7: 340-343.



Enzyme Activity Data: Recombinant SMYD3, human (1 µg) was used in a methylation assay with 1 µg recombinant human histone H4 and radioactive SAM and the reaction was run on a PAGE gel. **Lane 1:** GST only vector. **Lane 2:** GST-SMYD3 vector. **Left Panel:** Coomassie stained gel. **Right panel:** Autoradiograph.



Protein Gel Data: Recombinant human SMYD3 (1 µg) run on a PAGE gel and stained with Coomassie blue. Migration and molecular weight of protein standards is indicated.