

## Recombinant Human SET And MYND Domain Containing 2, His-tagged

**Cat. No.** SMYD2-921H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Product Overview</b> | Recombinant Human SMYD3 protein (Lys 35 - Ser 369), fused with the GST tag at the N-terminus, was expressed in <i>Insect cells</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>    | 35-369 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | SET and MYND domain-containing protein 3, also known as Zinc finger MYND domain-containing protein 1, SMYD3, and ZMYND, is a member of the histone-lysine methyltransferase family. SMYD3 contains one MYND-type zinc finger and one SET domain. SMYD3 is a histone H3 lysine-4-specific methyltransferase. It is expressed in skeletal muscles and testis. It is overexpressed in a majority of colorectal carcinoma (CRC) and hepatocellular carcinoma (HCC). SMYD3 plays an important role in transcriptional regulation in human carcinogenesis. It activates the transcription of a set of downstream genes. Of these downstream genes, there are several oncogenes and genes associated with cell adhesion (including those of N-Myc, CrkL, Wnt10b, L-selectin, CD31 and galectin-4), which have been shown to have effects on cell viability, adhesion, migration and metastasis. |
| <b>Molecular Mass</b>   | The recombinant human SMYD3 / GST chimera consists of 559 amino acids and predicts a molecular mass of 656kDa. It migrates as an approximately 58 KDa band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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in SDS-PAGE under reducing conditions.

|                              |                                                                                                                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Predicted N Terminal</b>  | Met.                                                                                                                                                                              |
| <b>Purity</b>                | > 88 % as determined by SDS-PAGE.                                                                                                                                                 |
| <b>Formulation</b>           | Lyophilized from sterile 20mM Tris,150mM NaCl, 0.5mM DTT, 0.5mM GSH , pH 8.0.                                                                                                     |
| <b>Endotoxin</b>             | < 1.0 EU per 1µg of the protein as determined by the LAL method.                                                                                                                  |
| <b>Reconstitution</b>        | A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.                                                   |
| <b>Storage And Stability</b> | Samples are stable for up to twelve months from date of receipt at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |

## GENE INFORMATION

|                       |                                                                                                                                                                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>      | SMYD3 SET and MYND domain containing 3 [ Homo sapiens ]                                                                                                                                                                                                                                     |
| <b>Synonyms</b>       | SET and MYND domain containing 3; KMT3E; ZMYND1; ZNFN3A1; FLJ21080; MGC104324; bA74P14.1; SMYD3; bA74P14.1 (novel protein); zinc finger, MYND domain containing 1; zinc finger protein, subfamily 3A (MYND domain containing), 1; EC 2.1.1.43; Zinc finger MYND domain-containing protein 1 |
| <b>Gene ID</b>        | 64754                                                                                                                                                                                                                                                                                       |
| <b>mRNA Refseq</b>    | NM_001167740                                                                                                                                                                                                                                                                                |
| <b>Protein Refseq</b> | NP_001161212                                                                                                                                                                                                                                                                                |

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|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MIM</b>                 | 608783                                                                                                                                              |
| <b>UniProt ID</b>          | Q9H7B4                                                                                                                                              |
| <b>Chromosome Location</b> | 1q44                                                                                                                                                |
| <b>Function</b>            | histone-lysine N-methyltransferase activity; metal ion binding; methyltransferase activity; protein binding; transferase activity; zinc ion binding |

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