

Human SMYD3 / ZMYND1 Protein (His & FLAG Tag)

Catalog Number: 11230-H18H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

bA74P14.1; KMT3E; ZMYND1; ZNFN3A1

Protein Construction:

A DNA sequence encoding the human SMYD3 isoform 1 (NP_001161212.1) (Met 1-Ser 428) was fused with the flag tag at the N-terminus, and the Histidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 70 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human SMYD3 consists of 447 amino acids and predicts a molecular mass of 51.5 kDa. It migrates as an approximately 49 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 25mM Tris-HCl, 100mM NaCl, 20% glycerol, 3mM DTT, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

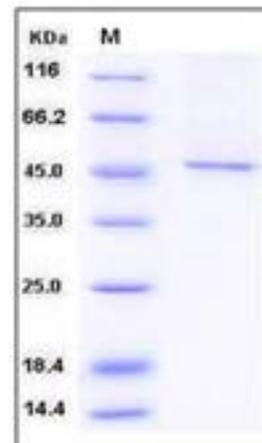
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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. Increased SMYD3 expression is essential for the proliferation of breast cancer cells. SMYD3 may be a promising new target of therapeutic intervention for the treatment of cancers or other pathological processes associated with cell adhesion and migration.

References

- 1.Hamamoto, R. et al., 2006, Cancer Sci. 97 (2): 113-8.
- 2.Luo, XG. et al., 2007, J Biosci Bioeng. 103 (5): 444-50.
- 3.Wang, XQ. et al., 2007, Exp Oncol. 29 (1): 71-3.

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