

Human SMYD3 / ZMYND1 Protein (His & FLAG Tag)

Catalog Number: 11230-H18H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

bA74P14.1; KMT3E; ZMYND1; ZNFN3A1; 2410008A19Rik; Zmynd1

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: Human Cells

QC Testing

Purity: > 80 % 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:

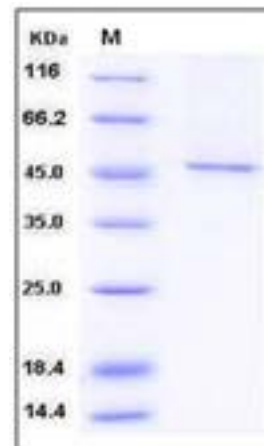
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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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