



Recombinant Protein Technical Manual

**Recombinant Human SMYD3/ZMYND1 Protein
(His&FLAG Tag)**
RPES2534

Product Data:

Product SKU: RPES2534

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001161212.1

Protein Information:

Molecular Mass: 51.5 kDa

AP Molecular Mass: 49 kDa

Tag: C-His & N-FLAG

Bio-activity:

Purity: > 70 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: bA74P14.1;KMT3E;ZMYND1;ZNFN3A1

Immunogen Information:

Sequence: Met 1-Ser 428

Background:

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.