Recombinant Human SMYD2/KMT3C Protein (His Tag)

Catalog No. PKSH031260

Note: Centrifuge before opening to ensure complete recovery of vial contents.

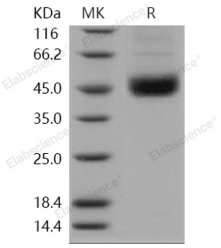
Description

Synonyms	HSKM-B;KMT3C;ZMYND14
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-His 433
Accession	NP_064582.2
Calculated Molecular Weight	52.0 kDa
Observed molecular weight	48 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 100mM NaCl, 10% glycerol, pH 8.0 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

SET and MYND domain-containing protein 2, also known as HSKM-B, SMYD2, and KMT3C, is a member of the SMYD protein family. It contains one MYND-type zinc finger and one SET domain. Not much is known about SMYD2.

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However, the interest in better understanding the roles of SMYD2 has grown because of reports indicating that SMYD2 methylates p53 and histone H3. In Xenopus, SMYD1 and SMYD2 were expressed in various muscle tissues and related to muscle cells differentiation. SMYD2 mRNA is most highly expressed in heart and brain tissue. Over-expressed SMYD2 localizes to the cytoplasm and the nucleus in 293T cells. SMYD2 appears to restrain cell proliferation, likely through direct modulation of chromatin structure. Patients with SMYD2-overexpressing tumors had a worse overall rate of survival than those with non-expressing tumors, and SMYD2 positivity was independently associated with a worse outcome in the multivariate analysis. SMYD2 plays an important role in tumor cell proliferation through its activation/overexpression and regards as a prognosticator and potential therapeutic target in esophageal squamous cell carcinoma (ESCC).

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