Human SETD7 / SET7/9 Protein (His Tag)

Catalog Number: 11209-H07E



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General Information

Gene Name Synonym:

KMT7; SET7; SET7/9; SET9; 1600028F23Rik; H3K4MT; KMT7; mKIAA1717; Set7; Set7/9

Protein Construction:

A DNA sequence encoding the human SETD7 (NP_085151.1) (Asp 2-Lys 366) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 94 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 $^\circ\!\!\!\mathrm{C}$

Predicted N terminal: Met

Molecular Mass:

The recombinant human SETD7 comprises 372 amino acids and has a predicted molecular mass of 41.5 kDa. It migrates as an approximately 48 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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 $^\circ\!C$ to -80 $^\circ\!C$ 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

Histone-lysine N-methyltransferase SETD7, also known as SET domain containing (lysine methyltransferase) 7, SET7/9, Histone H3-K4 methyltransferase SETD7, H3-K4-HMTase SETD7, and SETD7, is a member of the histone-lysine methyltransferase family and SET7 subfamily. SETD7 is widely expressed and expressed in pancreatic islets. SETD7 contains three MORN repeats and one SET domain. SETD7 plays a central role in the transcriptional activation of genes such as collagenase or insulin. As a protein lysine methyltransferase (PKMT), SETD7 also has methyltransferase activity toward non-histone proteins such as p53/TP53, TAF10, and possibly TAF7 by recognizing and binding in substrate proteins. The mono-methyltransferase activity of SETD7 is achieved by disrupting the formation at near-attack conformations for the dimethylation reaction. SETD7 is also a novel coactivator of NF-kappaB and plays a role in inflammation and diabetes.

References

1.Wang, H. et al., 2002, Mol Cell 8 (6): 1207-17. 2.Jacobs, SA. et al., 2002, Nat. Struct. Biol. 9 (11): 833-8. 3.Xiao B, et al., 2003, Nature. 421 (6923): 652-6.