

PRODUCT INFORMATION



SET7/9 (human recombinant)

Item No. 10320

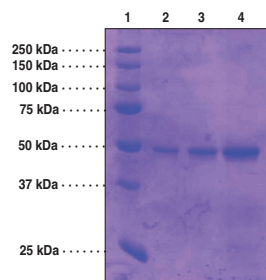
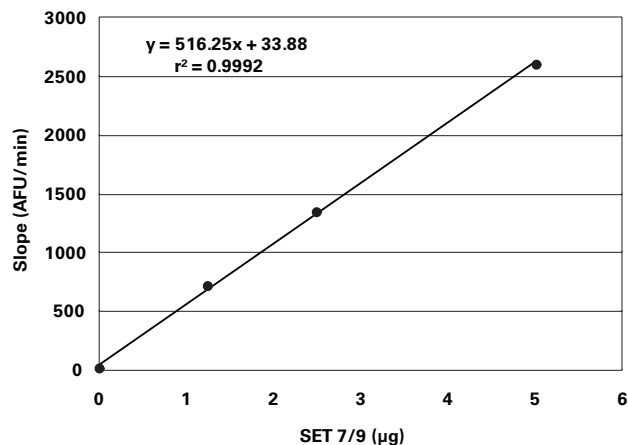
Overview and Properties

Synonyms: KMT7, SETD7, SETD7/9, SET Domain-Containing Protein 7/9
Source: Active recombinant N-terminal His-tagged SET7/9 purified from *E. coli*
Amino Acids: 1-366 (full-length)
Uniprot No.: Q8WTS6
Molecular Weight: 43.3 kDa
Storage: -80°C (as supplied)
Stability: ≥6 months
Purity: *batch specific* (≥95% estimated by SDS-PAGE)
Supplied in: 50 mM HEPES, pH 7.2, 100 mM sodium chloride, and 20% glycerol
Protein Concentration: *batch specific* mg/ml
Activity: *batch specific* U/ml. Determined using 50 μM human TAF10 peptide (amino acids 186-195) (Item No. 10228) (Ac)SKSKDRKYTL at 37°C using Cayman's Methyltransferase Colorimetric Assay Kit (Item Number 700140).

Specific Activity: *batch specific* nmoles/min/mg

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: SET7/9 (1 μg)
Lane 3: SET7/9 (2 μg)
Lane 4: SET7/9 (5 μg)

Representative gel image shown; actual purity may vary between each batch but protein will be ≥95% pure.

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/21/2018

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Methylation of lysine can promote transcriptional activation or repression and is critical in regulating histone function.¹ Lysine residues can be mono-, di-, or tri-methylated, and unlike most SET proteins, SET7/9 is exclusively a mono-methylase.² SET7/9 methylates histone H3, tumor suppressor p53, and transcription factor TAF10.³ Recently, SET7/9 was shown to catalyze methylation of p53 in response to DNA damage thereby activating p53 for subsequent acetylation.¹ SET7/9 is able to modulate p53 activity in a human cancer cell line, implying that it may play a significant role in human tumorigenesis.

References

1. Kurash, J.K., Lei, H., Shen, Q., *et al.* Methylation of p53 by Set7/9 mediates p53 acetylation and activity in vivo. *Mol. Cell* **29**, 392-400 (2008).
2. Xiao, B., Jing, C., Wilson, J.R., *et al.* Structure and catalytic mechanism of the human histone methyltransferase SET7/9. *Nature* **421**, 652-656 (2003).
3. Couture, J.F., Collazo, E., Hauk, G., *et al.* Structural basis for the methylation site specificity of SET7/9. *Nat. Struct. Mol. Biol.* **13**(2), 140-146 (2006).

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM