

PRODUCT INFORMATION



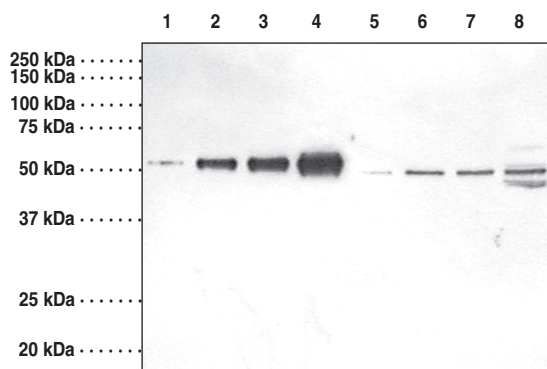
SET7/9 (FL) Polyclonal Antibody

Item No. 13780

Overview and Properties

| | |
|----------------------------|---|
| Contents: | This vial contains 400 µg of protein-A purified polyclonal antibody. |
| Synonyms: | KMT7, SETD7/9, SET Domain-Containing Protein 7/9 |
| Immunogen: | Human recombinant SET7/9 (amino acids 1-366) |
| Species Reactivity: | (+) Human, mouse; other species not tested |
| Uniprot No.: | Q8WTS6 |
| Form: | Liquid |
| Storage: | -20°C (as supplied) |
| Stability: | ≥3 years |
| Storage Buffer: | PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide |
| Host: | Rabbit |
| Application: | Western blot (WB); the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically. |

Image



Lane 1: SET7/9 Recombinant Protein (0.001 µg)
Lane 2: SET7/9 Recombinant Protein (0.005 µg)
Lane 3: SET7/9 Recombinant Protein (0.01 µg)
Lane 4: SET7/9 Recombinant Protein (0.1 µg)
Lane 5: K562 cell lysate (15 µg)
Lane 6: K562 cell lysate (30 µg)
Lane 7: K562 cell lysate (50 µg)
Lane 8: HeLa cell lysate (50 µg)

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
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Description

Diverse signal transduction pathways impinging on the N-terminal tails of histones lead to a number of post-translational modifications including acetylation, phosphorylation, poly (ADP-ribosylation), ubiquitination, and methylation. These modifications play critical roles in regulating chromatin structure and gene expression.¹ Histone methyltransferases selectively methylate evolutionarily conserved arginine or lysine residues, primarily in the N-terminal tails of histones H3 and H4. SET7/9 utilizes S-adenosylmethionine to methylate histone H3 at lysine 4.²⁻⁴ Human SET7/9 is a 366 amino acid protein with observed migration on SDS-PAGE at 49 kDa.

References

1. Bhaumik, S.R., Smith, E., and Shilatifard, A. Covalent modifications of histones during development and disease pathogenesis. *Nat. Struct. Mol. Biol.* **14(11)**, 1008-1016 (2007).
2. 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).
3. 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).
4. Kwon, T., Chang, J.H., Kwak, E., *et al.* Mechanism of histone lysine methyl transfer revealed by the structure of SET7/9-AdoMet. *EMBO J.* **22(2)**, 292-303 (2003).

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