

Product Information



SET7/9 (FL) Polyclonal Antibody

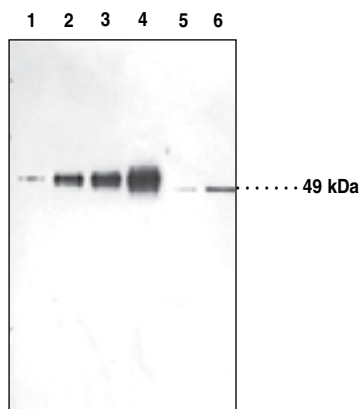
Item No. 13780 • Lot. No. XXXXXX

- Contents:** This vial contains (100-500 µg of protein-A purified IgG, *lot specific*) in 500 µl TBS, pH 7.4, containing 50% glycerol, 0.5 mg/ml BSA, and 0.02 % sodium azide (enough for 10 x 10 ml working volumes).
- Synonyms:** KMT7, SETD7/9, SET Domain-Containing Protein
- Antigen:** Human recombinant SET7/9 (amino acids 1-366)
- Host:** Rabbit
- Cross Reactivity:** (+) Human and mouse SET7/9
- Stability:** ≥1 year at -20°C
- Application:** Recommended starting dilution of 1:200 for western blotting. Other applications have not been tested.
- Concentration:** Varies by lot, from 0.2-1.0 mg/ml (100-500 µg/vial). Always 100 µl final working volume for western blotting.

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. *Nature Structural & Molecular Biology* **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. *Nature Structural and Molecular Biology* **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).



Lane 1: SET7/9 Recombinant Protein (His-tagged) (0.001 µg)
Lane 2: SET7/9 Recombinant Protein (His-tagged) (0.005 µg)
Lane 3: SET7/9 Recombinant Protein (His-tagged) (0.01 µg)
Lane 4: SET7/9 Recombinant Protein (His-tagged) (0.1 µg)
Lane 5: K562 Cell Lysate (15 µg)
Lane 6: K562 Cell Lysate (30 µg)

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