

RBBP5 (D4Y7R) Rabbit mAb

✓ 100 µl
(10 western blots)

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W Endogenous	Species Cross-Reactivity* H, M, R, Mk, (C, X, Z, Hr)	Molecular Wt. 67 kDa	Isotype Rabbit IgG**
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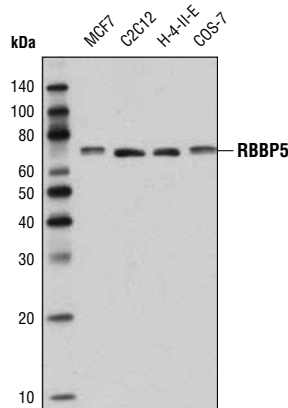
Background: The Set1 histone methyltransferase protein was first identified in yeast as part of the Set1/COMPASS histone methyltransferase complex, which methylates histone H3 at Lys4 and functions as a transcriptional co-activator (1). While yeast contain only one known Set1 protein, mammals contain six Set1-related proteins: SET1A, SET1B, MLL1, MLL2, MLL3, and MLL4, all of which assemble into COMPASS-like complexes and methylate histone H3 at Lys4 (2,3). These Set1-related proteins are each found in distinct protein complexes, all of which share the common subunits WDR5, RBBP5, ASH2L, CXXC1 and DPY30, which are required for proper complex assembly and modulation of histone methyltransferase activity (2-6). MLL1 and MLL2 complexes contain the additional protein subunit, menin (6). Like yeast Set1, all six Set1-related mammalian proteins methylate histone H3 at Lys4 (2-6). MLL translocations are found in a large number of hematological malignancies, suggesting that Set1/COMPASS histone methyltransferase complexes play a critical role in leukemogenesis (6).

Specificity/Sensitivity: RBBP5 (D4Y7R) recombinant antibody recognizes endogenous levels of total RBBP5 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly261 of human RBBP5 protein.

Background References:

- (1) Miller, T. et al. (2001) *Proc Natl Acad Sci USA* 98, 12902-7.
- (2) Shilatifard, A. (2008) *Curr Opin Cell Biol* 20, 341-8.
- (3) Tenney, K. and Shilatifard, A. (2005) *J Cell Biochem* 95, 429-36.
- (4) Lee, J.H. and Skalniak, D.G. (2005) *J Biol Chem* 280, 41725-31.
- (5) Lee, J.H. et al. (2007) *J Biol Chem* 282, 13419-28.
- (6) Hughes, C.M. et al. (2004) *Mol Cell* 13, 587-97.



Western blot analysis of extracts from various cell lines using RBBP5 (D4Y7R) Rabbit mAb.

Entrez-Gene ID #5929
Swiss-Prot Acc. #Q15291

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.