

# Ezh2 (D2C9) XP® Rabbit mAb (Biotinylated)



✓ 100 µl  
(10 western blots)

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

Entrez-Gene ID #2146  
Swiss-Prot Acc. #Q15910

Applications W Endogenous	Species Cross-Reactivity* H, M, R, Mk	Molecular Wt. 98 kDa	Isotype Rabbit IgG
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**Description:** This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Ezh2 (D2C9) XP® Rabbit mAb #5246.

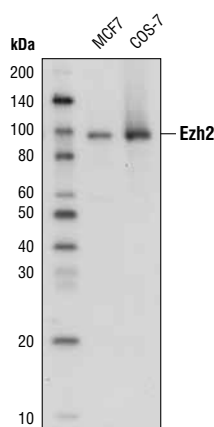
**Background:** The polycomb group (PcG) proteins are involved in maintaining the silenced state of several developmentally regulated genes and contribute to the maintenance of cell identity, cell cycle regulation, and oncogenesis (1,2). Enhancer of zeste homolog 2 (Ezh2), a member of this large protein family, contains four conserved regions including domain I, domain II, and a cysteine-rich amino acid stretch that precedes the carboxy-terminal SET domain (3). The SET domain has been linked with histone methyltransferase (HMTase) activity. Moreover, mammalian Ezh2 is a member of a histone deacetylase complex that functions in gene silencing, acting at the level of chromatin structure (4). Ezh2 complexes methylate histone H3 at Lys9 and 27 *in vitro*, which is thought to be involved in targeting transcriptional regulators to specific loci (5). Ezh2 is deregulated in various tumor types, and its role, both as a primary effector and as a mediator of tumorigenesis, has become a subject of increased interest (6).

**Specificity/Sensitivity:** Ezh2 (D2C9) XP® Rabbit mAb (Biotinylated) recognizes endogenous levels of total Ezh2 protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg354 of human Ezh2 protein.

#### Background References:

- (1) Seller, W.B. and Loda, M. (2002) *Cancer Cell* 2, 349-350.
- (2) Visser, H.P. et al. (2001) *Br. J. Haematol.* 112, 950-958.
- (3) Chen, H. et al. (1996) *Genomics* 38, 30-37.
- (4) Tonini, T. et al. (2004) *Oncogene* 23, 4930-4937.
- (5) Muller, J. et al. (2002) *Cell* 111, 197-208.
- (6) Kleer, C.G. et al. (2003) *Proc Natl. Acad. Sci. USA* 100, 11606-11611.



Western blot analysis of extracts from MCF7 and COS-7 cells using Ezh2 (D2C9) XP® Rabbit mAb (Biotinylated). Streptavidin-HRP #3999 was used for western detection.

**Storage:** Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibodies.

**\*Species cross-reactivity is determined by western using the unconjugated antibody.**

**Biotinylated antibodies are designed to be detected using streptavidin or anti-biotin antibody conjugates.**

#### Recommended Antibody Dilutions:

Western blotting 1:1000

**For product specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://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.