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Ezh2 (D2C9) XP[®] Rabbit mAb (Alexa Fluor[®] 647 Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP	Reactivity: H M R Mk	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #Q15910	Entrez-Gene Id: 2146
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Product Usage Information

Application

Flow Cytometry (Fixed/Permeabilized)

Dilution

1:50

Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

Ezh2 (D2C9) XP[®] Rabbit mAb (Alexa Fluor[®] 647 Conjugate) detects 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.

Description

This Cell Signaling Technology antibody is conjugated to Alexa Fluor[®] 647 fluorescent dye and tested in-house for direct flow cytometry and immunofluorescent analysis in human cells. The 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).

Background References

1. Sellers, W.R. and Loda, M. (2002) *Cancer Cell* 2, 349-50.
2. Visser, H.P. et al. (2001) *Br J Haematol* 112, 950-8.
3. Chen, H. et al. (1996) *Genomics* 38, 30-7.
4. Tonini, T. et al. (2004) *Oncogene* 23, 4930-7.
5. Müller, J. et al. (2002) *Cell* 111, 197-208.
6. Kleer, C.G. et al. (2003) *Proc Natl Acad Sci U S A* 100, 11606-11.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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