Revision 1

Store at -20C

#42088

EZH1 (D7D5D) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H Mk	Endogenous	95	Rabbit IgG	#Q92800	2145

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

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.

Specificity/Sensitivity

EZH1 (D7D5D) Rabbit mAb recognizes endogenous levels of total EZH1 protein. This antibody does not cross-react with EZH2 protein.

Species predicted to react based on 100% sequence homology

Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human EZH1 protein.

Background

The polycomb group (PcG) proteins are involved in maintaining the silenced state of multiple developmentally regulated genes and contribute to the maintenance of cell identity, cell cycle regulation, and oncogenesis. Enhancer of zest homolog 1 (Ezh1), is a member of this large protein family and a subunit of the polycomb repressor complex 2 (PRC2), also containing SUZ12 and EED. Ezh1 and its paralog Ezh2 are mutually exclusive catalytic subunits of the PRC2 complex, which functions to mono-, di-, and tri-methylated Lys27 on histone H3, a mark that is associated with transcriptional repression. While EZH1 is less abundant than EZH2, it is still required for cell identity and self-renewal of embryonic stem cells (1,2). Ezh1 is also required for hematopoietic stem cell maintenance and functions to prevent a senescence-like cell cycle arrest (3). Ezh1 is required for myogenic differentiation and hepatocyte homeostasis and regeneration (4,5). While many studies have implicated Ezh2 in multiple types of cancer, a potential role for Ezh1 is less understood. However, several studies have shown dual inhibitors of Ezh1/Ezh2 to be more effective than Ezh2-specific inhibitors in treatment of multiple myeloma, prostate cancer, diffuse large B-cell lymphoma, and leukemia, suggesting an important role for Ezh1 in cancer (6-8).

Background References

1. Shen, X. et al. (2008) *Mol Cell* 32, 491-502.
2. Shan, Y. et al. (2017) *Nat Commun* 8, 672.
3. Hidalgo, I. et al. (2012) *Cell Stem Cell* 11, 649-62.
4. Stojic, L. et al. (2011) *Epigenetics Chromatin* 4, 16.
5. Bae, W.K. et al. (2015) *FASEB J* 29, 1653-62.
6. Rizq, O. et al. (2017) *Clin Cancer Res* 23, 4817-4830.
7. Honma, D. et al. (2017) *Cancer Sci* 108, 2069-78.
8. Xu, B. et al. (2015) *Blood* 125, 346-57.

Species Reactivity

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

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **Mk:** Monkey

Trademarks and Patents

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.