

PRODUCT NAME		
Crude serum directed against EZH2		
(Enhancer of zeste homolog 2, Component of the Polycomb group) Other names: ENX-1		
Catalog #: C15310039 (CS-039-100)	Type: Polyclonal ChIP-grade	Size: 100 µl
Lot #: 001	Source: Rabbit	Concentration: not determined

Description: This antiserum has been raised against the N-terminus (aa1-343) of mouse EZH2. EZH2 is a histone-lysine methyltransferase with activity dependent on its association with other components of the Polycomb Repressive Complexes 2 and 3 (PCR2/3). The PRC2 complex is composed of EED, EZH2, SUZ12/JJAZ1, RBBP4 and RBBP7 (see overview below).

Specificity: Human and mouse: positive
Other species: not tested

Applications	Suggested dilution	References
ELISA	Not tested	
Dot blotting	Not tested	
Western blotting	1:1,000	Fig 1
Gel Supershift	Not tested	
Immunofluorescence	Not tested	
Flow cytometry	Not tested	
Immunoprecipitation	Not tested	
ChIP	5 µl/ChIP	Fig 2

Format: Crude serum from rabbit containing 0.05% azide.

Storage: For long storage, store at -20°C/ -80°C. Avoid multiple freeze-thaw cycles.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Availability date: April 3, 2007. Last data sheet update: August 3, 2007

References

- [1] Schumacher A. and Magnuson T. 1997. *Trends Genet.* 13:167-70.
- [2] van der Vlag J. and Otte A.P. 1999. *Nature Genetics* 23:474-78.
- [3]. Varambally S., Dhanasekaran S.M., Zhou M., Barrette T.R., Kumar-Sinha C., Sanda M.G., Ghosh D., Pienta K.J., Sewalt R.G., Otte A.P., Rubin M.A. and Chinnaiyan A.M. 2002. *Nature* 419(6907):624-9.
- [4]. Kleer C.G., Cao Q., Varambally S., Shen R., Ota I., Tomlins S.A., Ghosh D., Sewalt R.G., Otte A.P., Hayes D.F., Sabel M.S., Livant D., Weiss S.J., Rubin M.A. and Chinnaiyan A.M. 2003. *Proc Natl Acad Sci U S A.* 100(20):11606-11.

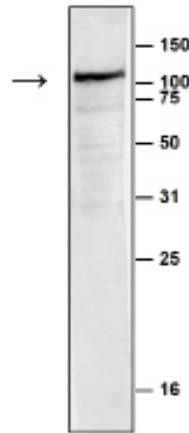


Figure 1

Western blot analysis using the Diagenode crude serum anti-EZH2.

Western blot was performed using nuclear extracts from HeLa cells (HeLa NE, 20 µg) and the Diagenode crude serum directed against EZH2 (cat# CS-039-100) at dilution 1:1,000 in TBS-Tween + 5% skimmed milk. The antibody recognizes endogenous EZH2 in HeLa nuclear extract. On the right side, a molecular weight marker is shown (in kDa). The arrow indicates the location of the protein of interest.

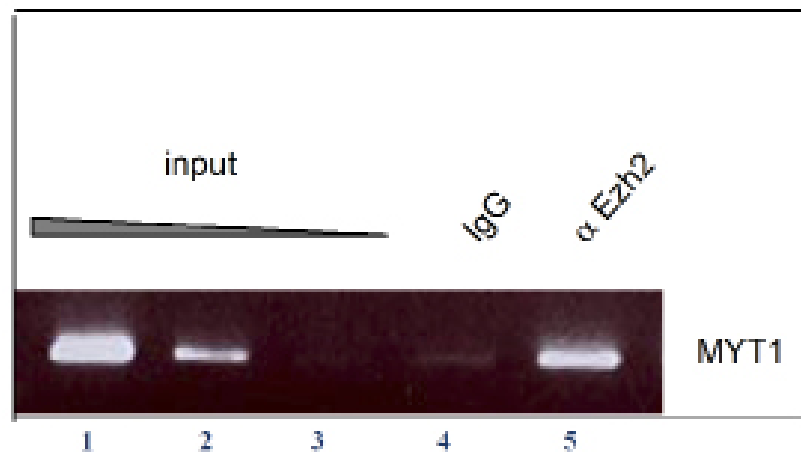


Figure 2

ChIP results obtained with the Diagenode purified antibody directed against EZH2.

ChIP assays were performed using Jurkat cells (human peripheral blood leukemia T-cells), the polyclonal antibody directed against EZH2 (Ezh2; Diagenode, cat# pAb-039-050) and the PCR primer set MYT1. IgG was used as negative control. Decreasing amounts of input were used for end-point PCR (lanes 1-3). The positive IP with the antibody anti-EZH2 gives a clear signal (lane 5), while the negative control gives no signal (lane 4). The figure shows the results for IgG purified antibody (2 µg/ChIP), however the crude serum (cat# CS-039-100) also works in ChIP at 5 µl/ChIP.

Overview

Polycomb group (PcG) family members form multimeric protein complexes, which are involved in maintaining the transcriptional repressive state of genes over successive cell generations [1,2]. EZH2 associates with the embryonic ectoderm development protein (Eed), the VAV1 oncoprotein, and the X-linked nuclear protein. EZH2 may play a role in the hematopoietic and central nervous systems (NCBI GeneID: 2146: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=gene&cmd=Retrieve&dopt=full_report&list_uids=2146). Over-expression of EZH2 is observed during advanced stages of prostate cancer [3] and breast cancer [4].