

## Technical Data Sheet

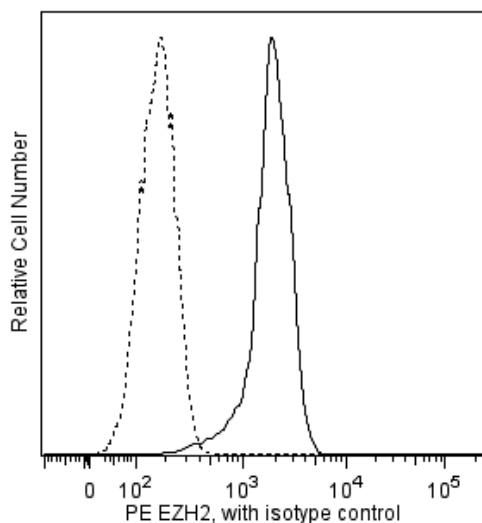
## PE Mouse anti-EZH2

## Product Information

<b>Material Number:</b>	<b>562478</b>
<b>Alternate Name:</b>	Enhancer of zeste 2; ENX-1; Histone-lysine N-methyltransferase EZH2; KMT6
<b>Entrez Gene ID:</b>	2146
<b>Size:</b>	50 tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	11/EZH2
<b>Immunogen:</b>	Human EZH2 recombinant protein aa. 156-256
<b>Isotype:</b>	Mouse IgG1
<b>Reactivity:</b>	QC testing: Human Tested by Western blot using purified mAb, Cat. No. 612666 or 612667: Chicken, Dog, Mouse, Rat
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

The 11/EZH2 monoclonal antibody specifically binds to the methyltransferase, EZH2 (Enhancer of Zeste Homolog 2). *EZH2* is a human homologue of *Drosophila's Enhancer of zeste* gene, an important regulator of homeobox gene expression. The EZH2 protein has a predicted molecular weight of ~85 kDa. EZH2 is a member of the Polycomb group (PcG) of proteins that are essential for the maintenance, but not initiation, of the transcriptionally repressed state of certain developmental genes. PcG proteins are a structurally diverse group of proteins with conserved functions from fly to human cells. PcG family proteins form multimeric complexes that regulate the expression of genes involved in cell cycle, DNA repair and differentiation. Specifically, EZH2 is a core enzymatic component of PRC2 (polycomb repressive complex 2). EZH2 is expressed in some lymph node follicular T cells and B cells. Thymocytes differentially express EZH2 at various stages during T-cell maturation. EZH2 interacts with multiple signaling proteins, including Vav, that are involved in lymphocyte development and activation. It is highly expressed in a variety of tumors including lymphomas as well as breast and prostate cancers. EZH2 is important in the self renewal and proliferation of numerous stem cell types including fetal hematopoietic stem cells, muscle satellite cells, hepatic stem/progenitor cells, neural stem cells, basal cell progenitors in the developing epidermis, embryonic stem cells, and some cancer stem cells.



**Flow cytometric analysis of EZH2 expression in a human cell line.** Jurkat cells (ATCC, TIB-152™) were harvested, fixed in BD Cytotfix™ Fixation Buffer (Cat. No. 554655), permeabilized with BD Phosflow™ Perm/Wash Buffer I (Cat. No. 557885) and stained with matching concentrations of either PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; dashed line histogram) or PE Mouse anti-EZH2 monoclonal antibody (Cat. No. 562478; solid line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable Jurkat cells. Flow cytometry was performed using a BD FACS Canto™ II Flow Cytometer System.

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

## Application Notes

## Application

Intracellular staining (flow cytometry)	Routinely Tested
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### Recommended Assay Procedure:

This antibody conjugate is suitable for intracellular staining of human cell lines using BD Cytotfix™ Fixation Buffer (Cat. No. 554655). BD Phosflow™ Perm/Wash Buffer I (Cat. No. 557885) and BD Phosflow™ Perm Buffer III (Cat. No.558050) can be used with this antibody conjugate.

### Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)
554655	Fixation Buffer	100 ml	(none)
557885	Perm/Wash Buffer I	125 ml	(none)
558050	Perm Buffer III	125 ml	(none)
562479	Alexa Fluor® 488 Mouse anti-EZH2	50 tests	11/EZH2

### Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. For fluorescence spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. All other brands are trademarks of their respective owners.
7. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.

### References

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Wolters T, Vissers KJ, Bangma CH, Schroder FH, van Leenders GJ. The value of EZH2, p27(kip1), BMI-1 and MIB-1 on biopsy specimens with low-risk prostate cancer in selecting men with significant prostate cancer at prostatectomy. *BJU Int*. 2009; 106(2):280-286. (Clone-specific: Immunohistochemistry)

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