

# CBX3 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2082a

## Product Information

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|--------------------------|---|
| <b>Application</b>       | WB, IHC, FC, E  |
| <b>Primary Accession</b> | <a href="#">Q13185</a>  |
| <b>Reactivity</b>        | Human   |
| <b>Host</b>              | Mouse   |
| <b>Clonality</b>         | Monoclonal  |
| <b>Clone Names</b>       | 6D1C4   |
| <b>Isotype</b>           | IgG1  |
| <b>Calculated MW</b>     | 20811   |
| <b>Description</b>       | At the nuclear envelope, the nuclear lamina and heterochromatin are adjacent to the inner nuclear membrane. The protein encoded by this gene binds DNA and is a component of heterochromatin. This protein also can bind lamin B receptor, an integral membrane protein found in the inner nuclear membrane. The dual binding functions of the encoded protein may explain the association of heterochromatin with the inner nuclear membrane. This protein binds histone H3 tails methylated at Lys-9 sites. This protein is also recruited to sites of ultraviolet-induced DNA damage and double-strand breaks. Two transcript variants encoding the same protein but differing in the 5' UTR, have been found for this gene. |
| <b>Immunogen</b>         | Purified recombinant fragment of human CBX3 (AA: 1-183) expressed in E. Coli.   |
| <b>Formulation</b>       | Purified antibody in PBS with 0.05% sodium azide  |

## Additional Information

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| <b>Gene ID</b>     | 11335  |
| <b>Other Names</b> | Chromobox protein homolog 3, HECH, Heterochromatin protein 1 homolog gamma, HP1 gamma, Modifier 2 protein, CBX3                          |
| <b>Dilution</b>    | WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000  |
| <b>Storage</b>     | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| <b>Precautions</b> | CBX3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

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|--------------------------|--|
| <b>Name</b>              | CBX3   |
| <b>Function</b>          | Seems to be involved in transcriptional silencing in heterochromatin-like complexes. Recognizes and binds histone H3 tails methylated at 'Lys-9', leading to epigenetic repression. May contribute to the association of the heterochromatin with the inner nuclear membrane through its interaction with lamin B receptor (LBR). Involved in the formation of functional kinetochore through interaction with MIS12 complex proteins. Contributes to the conversion of local chromatin to a heterochromatin-like repressive state through H3 'Lys-9' trimethylation, mediates the recruitment of the methyltransferases SUV39H1 and/or SUV39H2 by the PER complex to the E-box elements of the circadian target genes such as PER2 itself or PER1. Mediates the recruitment of NIPBL to sites of DNA damage at double-strand breaks (DSBs) (PubMed: <a href="#">28167679</a> ). |
| <b>Cellular Location</b> | Nucleus. Note=Associates with euchromatin and is largely excluded from constitutive heterochromatin. May be associated with microtubules and mitotic poles during mitosis (Potential).   |

## References

1.BMC Cancer. 2013 Mar 23;13:148.2.PLoS One. 2012;7(8):e41401.

## Images

