

# CBX5 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2181a

## Product Information

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<b>Application</b>	WB, IHC, ICC, E
<b>Primary Accession</b>	<a href="#">P45973</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	1B10B2
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	22225
<b>Description</b>	This gene encodes a highly conserved nonhistone protein, which is a member of the heterochromatin protein family. The protein is enriched in the heterochromatin and associated with centromeres. The protein has a single N-terminal chromodomain which can bind to histone proteins via methylated lysine residues, and a C-terminal chromo shadow-domain (CSD) which is responsible for the homodimerization and interaction with a number of chromatin-associated nonhistone proteins. The encoded product is involved in the formation of functional kinetochore through interaction with essential kinetochore proteins. The gene has a pseudogene located on chromosome 3. Multiple alternatively spliced variants, encoding the same protein, have been identified.
<b>Immunogen</b>	Purified recombinant fragment of human CBX5 (AA: 1-191) 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>	23468
<b>Other Names</b>	Chromobox protein homolog 5, Antigen p25, Heterochromatin protein 1 homolog alpha, HP1 alpha, CBX5, HP1A
<b>Dilution</b>	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A 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>	CBX5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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**Name** CBX5

**Synonyms** HP1A

**Function** Component of heterochromatin that recognizes and binds histone H3 tails methylated at 'Lys-9' (H3K9me), leading to epigenetic repression. In contrast, it is excluded from chromatin when 'Tyr-41' of histone H3 is phosphorylated (H3Y41ph) (PubMed:[19783980](#)). May contribute to the association of heterochromatin with the inner nuclear membrane by interactions with the lamin-B receptor (LBR) (PubMed:[19783980](#)). Involved in the formation of kinetochore through interaction with the MIS12 complex subunit NSL1 (PubMed:[19783980](#), PubMed:[20231385](#)). Required for the formation of the inner centromere (PubMed:[20231385](#)).

**Cellular Location** Nucleus. Chromosome. Chromosome, centromere. Note=Colocalizes with HNRNPU in the nucleus (PubMed:19617346). Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase (PubMed:19617346). Localizes to sites of DNA damage (PubMed:28977666)

## References

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1.Mol Carcinog. 2011 Aug;50(8):601-13.2.J Mol Biol. 2013 Jan 9;425(1):54-70.

## Images

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