10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

CBX5 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO2182a

Specification

CBX5 Antibody - Product Information

Application	**E, WB, FC, IF**
Primary Accession	P45973
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**22.2kDa KDa**

Description
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.

Immunogen
Purified recombinant fragment of human CBX5 (AA:1-191) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

CBX5 Antibody - Additional Information

Gene ID 23468

Other Names
Chromobox protein homolog 5, Antigen p25, Heterochromatin protein 1 homolog alpha, HP1 alpha, CBX5, HP1A

Dilution
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400
IF~~1/200 - 1/1000

Storage
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.

Precautions

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CBX5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CBX5 Antibody - Protein Information

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). Can interact with lamin-B receptor (LBR). This interaction can contribute to the association of the heterochromatin with the inner nuclear membrane. Involved in the formation of functional kinetochore through interaction with MIS12 complex proteins.

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)

CBX5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture