

CBX5 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13779c

Specification

CBX5 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	<u>P45973</u>
Other Accession	<u>Q61686</u> , <u>NP_036249.1</u> , <u>NP_001120794.1</u> ,
	<u>NP_001120793.1</u>
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	22225
Antigen Region	88-117

CBX5 Antibody (Center) - Additional Information

Gene ID 23468

Other Names

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

Target/Specificity

This CBX5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-117 amino acids from the Central region of human CBX5.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

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

CBX5 Antibody (Center) - 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) (PubMed:<u>19783980</u>). May contribute to the association of heterochromatin with the inner nuclear membrane by interactions with the lamin-B receptor (LBR) (PubMed:<u>19783980</u>). Involved in the formation of kinetochore through interaction with the MIS12 complex subunit NSL1 (PubMed:<u>19783980</u>, PubMed:<u>20231385</u>). Required for the formation of the inner centromere (PubMed:<u>20231385</u>).

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 (Center) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CBX5 Antibody (Center) - Images



CBX5 Antibody (Center) (Cat. #AP13779c) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the CBX5 antibody detected the CBX5 protein (arrow).

CBX5 Antibody (Center) - Background

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.

CBX5 Antibody (Center) - References

Nozawa, R.S., et al. Nat. Cell Biol. 12(7):719-727(2010) Zeng, W., et al. Epigenetics 5(4):287-292(2010) Emelyanov, A.V., et al. J. Biol. Chem. 285(20):15027-15037(2010) Kiyomitsu, T., et al. J. Cell Biol. 188(6):791-807(2010) Chaturvedi, P., et al. PLoS ONE 5 (5), E10620 (2010) :