10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CBX1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11139

Specification

CBX1 Antibody - Product Information

Application	**WB**
Primary Accession	P83916
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**21418**

CBX1 Antibody - Additional Information

Gene ID 10951

Positive Control	**Western Blot: Various cell lysates**
Application & Usage	**Western blot: 1:500 – 1:1000**

Other Names
M31, MOD1, p25beta.

Target/Specificity
CBX1

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg of antibody in 100 µl PBS containing 0.02% sodium azide, 50% glycerol, pH 7.3

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
CBX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CBX1 Antibody - Protein Information

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Name CBX1

Synonyms CBX

Function
Component of heterochromatin. Recognizes and binds histone H3 tails methylated at 'Lys-9', leading to epigenetic repression. Interaction with lamin B receptor (LBR) can contribute to the association of the heterochromatin with the inner nuclear membrane.

Cellular Location
Nucleus Note=Unassociated with chromosomes during mitosis

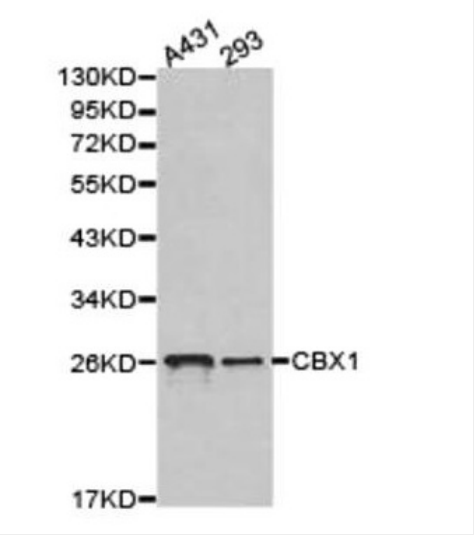
Tissue Location
Expressed in all adult and embryonic tissues.

CBX1 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

CBX1 Antibody - Images



WB of various cell extracts with CBX1 pAb.

CBX1 Antibody - Background

Heterochromatin protein 1 (HP1) is a family of heterochromatic adaptor molecules involved in both gene silencing and higher order chromatin structure. All three HP1 family members (α, β, and γ) are primarily associated with centromeric heterochromatin; However, HP1β and γ also localize to

euchromatic sites in the genome. HP1 proteins are approximately 25 kDa in size and contain a conserved amino terminal chromodomain, followed by a variable hinge region and a conserved carboxyterminal chromoshadow domain. The chromodomain facilitates binding to histone H3 tri-methylated at Lys9, a histone "mark" closely associated with centromeric heterochromatin. The variable hinge region binds both RNA and DNA in a sequence independent manner. The chromoshadow domain mediates the dimerization of HP1 proteins, in addition to binding multiple proteins implicated in gene silencing and heterochromatin formation, including the SUV39H histone methyltransferase, the DNMT1 and DNMT3a DNA methyltransferases, and the p150 subunit of chromatinassembly factor1 (CAF1). In addition to contributing to heterochromatin formation and propagation, HP1 and SUV39H are also found complexed with retinoblastoma (Rb) and E2F6 proteins, both of which function to repress euchromatic gene transcription in quiescent cells. HP1 proteins are subject to multiple types of posttranslational modifications, including phosphorylation, acetylation, methylation, ubiquitination, and sumoylation, suggesting multiple means of regulation.