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CBX4 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17028A

Product Information

Application	WB, E
Primary Accession	O00257
Other Accession	O55187, NP_003646.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36807
Calculated MW	61368
Antigen Region	1-30

Additional Information

Gene ID	8535
Other Names	E3 SUMO-protein ligase CBX4, 632-, Chromobox protein homolog 4, Polycomb 2 homolog, Pc2, hPc2, CBX4
Target/Specificity	This CBX4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human CBX4.
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	CBX4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CBX4
Function	E3 SUMO-protein ligase that catalyzes sumoylation of target proteins by promoting the transfer of SUMO from the E2 enzyme to the substrate

(PubMed:12679040, PubMed:22467880, PubMed:22825850). Also acts as a histone reader, which specifically recognizes and binds histone H3 trimethylated at 'Lys-9' and 'Lys-27' (H3K9me3 and H3K27me3, respectively) via its chromo domain (By similarity). Catalyzes sumoylation of HNRNPK, a p53/TP53 transcriptional coactivator, hence indirectly regulates p53/TP53 transcriptional activation resulting in p21/CDKN1A expression (PubMed:22825850). Acts as a regulator of brown adipocyte differentiation by mediating sumoylation of PRDM16, thereby preventing PRDM16 ubiquitination and degradation (By similarity). Monosumoylates ZBTB35 (PubMed:22467880). Component of a Polycomb group (PcG) multiprotein PRC1-like complex, a complex class required to maintain the transcriptionally repressive state of many genes, including Hox genes, throughout development (PubMed:12167701, PubMed:19636380, PubMed:21282530). PcG PRC1 complex acts via chromatin remodeling and modification of histones; it mediates monoubiquitination of histone H2A 'Lys-119', rendering chromatin heritably changed in its expressibility (PubMed:12167701, PubMed:19636380, PubMed:21282530). Plays a role in the lineage differentiation of the germ layers in embryonic development (By similarity).

Cellular Location Cytoplasm. Nucleus. Nucleus speckle. Note=Localization to nuclear polycomb bodies is required for ZBTB35 sumoylation (PubMed:22467880) Localized in distinct foci on chromatin (PubMed:18927235)

Tissue Location Ubiquitous.

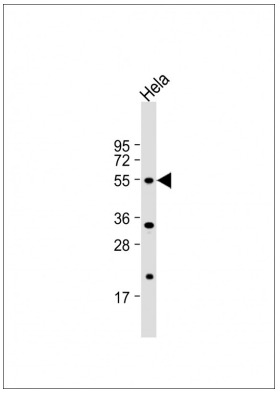
Background

E3 SUMO-protein ligase which facilitates SUMO1 conjugation by UBE2I. Component of the Polycomb group (PcG) multiprotein PRC1 complex, a complex required to maintain the transcriptionally repressive state of many genes, including Hox genes, throughout development. PcG PRC1 complex acts via chromatin remodeling and modification of histones; it mediates monoubiquitination of histone H2A 'Lys-119', rendering chromatin heritably changed in its expressibility.

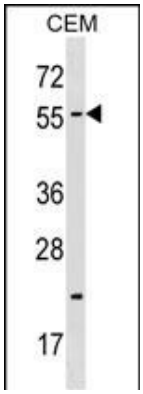
References

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Zhou, W., et al. BMB Rep 42(3):154-159(2009)
Liang, G., et al. Hum. Mol. Genet. 17(8):1109-1119(2008)
Kim, S.H., et al. Int. J. Biochem. Cell Biol. 40(11):2462-2471(2008)
Kabil, O., et al. Biochemistry 45(45):13528-13536(2006)

Images



Anti-CBX4 Antibody (N-term) at 1:1000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 61 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



CBX4 Antibody (N-term) (Cat. #AP17028a) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the CBX4 antibody detected the CBX4 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.