

ARG54922 anti-CBX4 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CBX4
Tested Reactivity	Hu, Ms, Rat
Tested Application	ELISA, ICC/IF, WB
Specificity	Two alternatively spliced transcript variants have been observed.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CBX4
Species	Human
Immunogen	Synthetic peptide (17 aa) within aa. 50-100 of Human CBX4.
Conjugation	Un-conjugated
Alternate Names	E3 SUMO-protein ligase CBX4; EC 6.3.2.-; Chromobox protein homolog 4; hPc2; PC2; NBP16; Pc2; Polycomb 2 homolog

Application Instructions

Application table	Application	Dilution
	ELISA	Assay-dependent
	ICC/IF	20 µg/ml
	WB	1 µg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Human Brain Tissue Lysate	

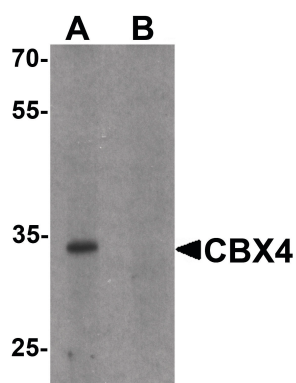
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

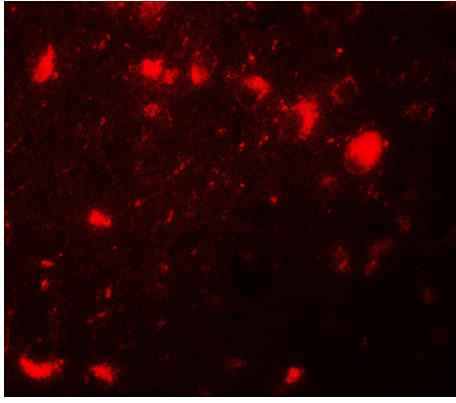
Database links	GeneID: 12418 Mouse
	GeneID: 8535 Human
	Swiss-port # O00257 Human
	Swiss-port # O55187 Mouse
Gene Symbol	CBX4
Gene Full Name	chromobox homolog 4
Background	CBX4 Antibody: Polycomb group (PcG) proteins are chromatin-associated proteins which are important for embryonic and adult stem cell self-renewal and maintenance. At least two distinct human PcG complexes have been identified. Polycomb repressive complex I (PRC1) contains CBX4/Pc2, HPH1 and RING domain-containing proteins (RING1, RING2 and BMI1). CBX4 (Chromobox protein homolog 4 or PC2), which functions as a transcriptional suppressor, is a candidate of KyoT2-binding proteins. It is a E3 SUMO-protein ligase which facilitates SUMO1 conjugation. Depletion of CBX4 results in decreased cellular resistance to ionizing radiation. CBX4 is directly involved in the cellular response to DNA damage.
Function	E3 SUMO-protein ligase which facilitates SUMO1 conjugation by UBE2I. Involved in the sumoylation of HNRNPK, a p53/TP53 transcriptional coactivator, hence indirectly regulates p53/TP53 transcriptional activation resulting in p21/CDKN1A expression. Monosumoylates ZNF131. 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. 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. [UniProt]
Research Area	Gene Regulation antibody
Calculated Mw	61 kDa
PTM	Phosphorylated on Thr-497 by HIPK2 upon DNA damage. This phosphorylation stimulates E3 SUMO-protein ligase activity and promotes sumoylation on Lys-494, as well as sumoylation of other target proteins, such as HNRNPK.

Images



ARG54922 anti-CBX4 antibody WB image

Western blot: human brain tissue lysate stained with ARG54922 anti-CBX4 antibody at 1 ug/ml dilution in (A) the absence and (B) the presence of blocking peptide.



ARG54922 anti-CBX4 antibody IHC image

Immunohistochemistry: CBX4 in human brain tissue stained with ARG54922 anti-CBX4 antibody at 20 ug/ml dilution.