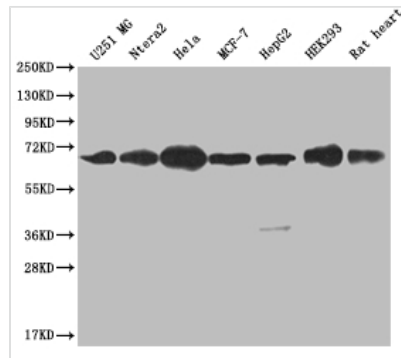




CBX2 Recombinant Monoclonal Antibody

Product Code	CSB-RA632623A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q14781
Immunogen	A synthesized peptide derived from human CBX2
Species Reactivity	Human, Rat
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:2000
Relevance	<p>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: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:21282530). Binds to histone H3 trimethylated at 'Lys-9' (H3K9me3) or at 'Lys-27' (H3K27me3) (By similarity). Plays a role in the lineage differentiation of the germ layers in embryonic development (By similarity). Involved in sexual development, acting as activator of NR5A1 expression (PubMed:19361780). {ECO:0000250 UniProtKB:P30658, ECO:0000269 PubMed:19361780, ECO:0000269 PubMed:21282530}.</p>
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling
Gene Names	CBX2
Clone No.	24A2
Image	



Western Blot

Positive WB detected in: U251 whole cell lysate, Ntera-2 whole cell lysate, Hela whole cell lysate, MCF-7 whole cell lysate, HepG2 whole cell lysate, HEK293 whole cell lysate, Rat heart tissue

All lanes: CBX2 antibody at 1:2000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 57, 24 kDa

Observed band size: 60-72 kDa

Description

The process of creating the CBX2 recombinant monoclonal antibody is complex and involves multiple stages. It begins with the harvesting of the CBX2 monoclonal antibody and sequencing of its gene. A vector carrying the CBX2 monoclonal antibody gene is then constructed and introduced into a host cell line for culture. During CBX2 monoclonal antibody production, a synthesized peptide derived from human CBX2 is used as the immunogen. The CBX2 recombinant monoclonal antibody is then purified using affinity chromatography and evaluated for specificity through ELISA and WB applications.

CBX2 is a member of the polycomb group (PcG) proteins that regulate gene expression by modifying chromatin structure. CBX2 binds to chromatin and recruits other PcG proteins to form a complex that silences gene expression. CBX2 has been shown to play a role in embryonic development, cell differentiation, and tumorigenesis. It is also involved in the maintenance of pluripotency in embryonic stem cells by repressing the expression of differentiation genes. Additionally, CBX2 has been linked to the regulation of cell cycle progression and DNA damage response.