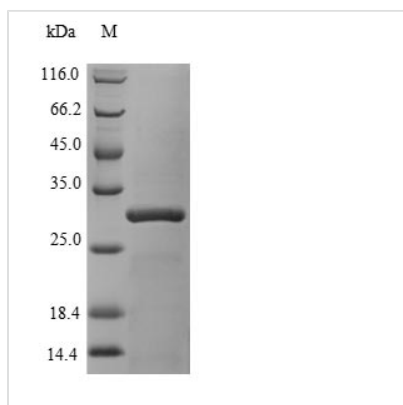




Recombinant Human Chromobox protein homolog 7 (CBX7)

Product Code	CSB-EP004603HU
Relevance	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. Promotes histone H3 trimethylation at 'Lys-9' (H3K9me3). Binds to trimethylated lysine residues in histones, and possibly also other proteins. Regulator of cellular lifespan by maintaining the repression of CDKN2A, but not by inducing telomerase activity.
Abbreviation	Recombinant Human CBX7 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O95931
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MELSAIGEQVFVAVESIRKKRVRKGKVEYLVKWKGWPPKYSTWEPEEHILDPRLV VMAYEEKEERDRASGYRKRGP KPKRLLLQRLYSMDLRSSHKAKGKEKLCFSL TCPLGSGSPEGVVKAGAPELVDKGPLVPTLPFPLRKPRKAHKYLRLSRKKFPP RGP NLESHSHRRELF LQEPPAPDVLQAAGEWEPA AQPPEEEADADLAEGPPP WTPALPSSEVTVDITANSITVTFREAQA AEGFFRDRSGKF
Research Area	Transcription
Source	E.coli
Target Names	CBX7
Expression Region	1-251aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	32.3kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Amino acids 1-251 form the expressed segment for recombinant Human CBX7. This CBX7 protein is theoretically predicted to have a molecular weight of 32.3 kDa. This CBX7 recombinant protein is manufactured in e.coli. The N-terminal 6xHis tag was fused into the coding gene segment of CBX7, making it easier to detect and purify the CBX7 recombinant protein in the later stages of expression and purification.

Chromobox protein homolog 7 (CBX7) is a protein that regulates gene expression, with one of its most prominent research areas centered around its role in cancer development. The abnormal expression of CBX7 in various cancer types is associated with tumor growth, invasion, and metastasis. Researchers are endeavoring to unveil the molecular mechanisms of CBX7 in the initiation and progression of cancer, aiming to provide new targets for cancer treatment and prevention. Additionally, CBX7's research in stem cells and genomic stability is of great interest. CBX7 is involved in cell fate determination and the self-renewal processes of stem cells, influencing cellular functions under normal physiological conditions. Its regulatory role in the genome involves changes in chromatin structure, making it crucial for understanding cellular development and differentiation processes.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.