

## Datasheet for ABIN3131894 CBX4 Protein (AA 1-551) (His tag)



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### 1 Image

#### Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 1 mg   |
| Target:                       | CBX4   |
| Protein Characteristics:      | AA 1-551   |
| Origin:                       | Mouse  |
| Source:                       | Insect Cells   |
| Protein Type:                 | Recombinant  |
| Purification tag / Conjugate: | This CBX4 protein is labelled with His tag.                          |
| Application:                  | ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS) |

#### Product Details

Sequence: MELPAVGEHV FAVESIEKKR IRKGRVEYLV KWRGWSPKYN TWEPEENILD PRLLIAFQNR  
ERQEQLMGYR KRGP KPPLV VQVPTFARRS NVLTGLQDSS ADNRAKLELG TQKGQGHQY  
ELNSKKHHQY QPHSKERSGK PPPPGKSGKY YYQLNSKKHH PYQDPKMYD LQYQGGHKEA  
PSPTCPDLGT KSHPPDKWAH GAAAKGYLGA VKPLGGGAGA PGKGSEKGPP NGMTPAPKEA  
VTGNGIGGKM KIVKNKNKNG RIVIVMSKYM ENGMQAVKIK SGAAEGEAR SPSHKKRAAE  
ERHPQGDRTF KKAAGASEEK KAEVPCRRE EEALVSGDAQ PQDLGSRKLS PTKEAFGEQP  
LQLTTKPDLL AWDPARSSHP PAHHHHHHHH HHHHHTVGLN LSHARKRCLS ETHGEREPCK  
KRLTARSIST PTCLGGSPVS EHPANVSPTA ASLPQPEVIL LDSLDDEPID LRCVKMRSDA  
GEPSTLQVK PEAPAVAAVV APAPASEKPP AEAQEPEVP LSEFKPFFGN IIITDVTANC  
LTVTFKEYVT V

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

## Product Details

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- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Mouse Cbx4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
  - State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

- Purification:
- Two step purification of proteins expressed in baculovirus infected SF9 insect cells:
1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
  2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

|                   |   |
|-------------------|---|
| Target:           | CBX4  |
| Alternative Name: | Cbx4 ( <a href="#">CBX4 Products</a> )  |
| Background:       | 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. 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. |
| Molecular Weight: | 61.5 kDa Including tag.   |
| UniProt:          | <a href="#">O55187</a>  |

## Application Details

|                    |   |
|--------------------|---|
| Application Notes: | In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.  |
| Comment:           | Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest. |
| Restrictions:      | For Research Use only   |

## Handling

|                  |  |
|------------------|--|
| Format:          | Liquid   |
| Buffer:          | 100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles.   |
| Storage:         | -80 °C   |
| Storage Comment: | Store at -80°C.  |
| Expiry Date:     | Unlimited (if stored properly)   |



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process