



## Human Centromere Protein B (CENPB)

|                     |                                  |                  |        |
|---------------------|----------------------------------|------------------|--------|
| <b>Origin:</b>      | Recombinant                      | <b>Cat. No.:</b> | 41620  |
| <b>Tag:</b>         | N-terminal 6xHis                 | <b>Size:</b>     | 0.1 mg |
| <b>Source:</b>      | <i>Spodoptera frugiperda</i> Sf9 | <b>Purity:</b>   | >90%   |
| <b>Other Names:</b> | CENPB                            | <b>Species:</b>  | Human  |

### Description

Expressed in insect Sf9 cells with total 623 AA. Mw: 68.1 KDa (calculated).  
N-terminal 6xHis-tag and TEV cleavage site, 25 extra AA (highlighted).

**Recombinant antigen for research use or manufacturing only.**

### Introduction to the Molecule

Centromere proteins are a group of proteins which form and/or mediate the function of centromeres, the central structures of chromosomes to which spindle fibers/microtubuli attach and pull the chromosomes apart in cell division. The centromere protein B (CENPB) is one of them.

CENPB is a DNA-binding protein derived from transposases of the pogo DNA transposon family and plays an important role in the assembly of specific centromere structures in interphase nuclei and on mitotic chromosomes. CENPB is the most important centromeric autoantigens and autoantibodies against CENPB are present in the sera of up to 80% of patients with CREST syndrome.

### Immunological Function

As an autoantigen, CENP-B binds with IgG-type human auto-antibodies.

### Amino Acid Sequence

**MSYYHHHHHDYDIPPTTENLYFQGA**GPKRRQLTFREKSRIIQEVEENPDLRKGEIARRFNIIPPST  
LSTILKNKRAILASERKYGVASTCRKTNKLSFYDKLEGLLIWFFQIRAAAGLPVKGIIILKEKALR  
IAEELGMDDFTASNGWLDLFRFRRHGVVSCSGVARARARNAAPRTPAAPASPAVPSEGSGGSTTG  
WRAREEQPPSVAEGYASQDVFSATETSLWYDFLPDQAAGLCGGDGRPRQATQRLSVLLCANADGS  
EKLPLLVAGKSAKPRAGQAGLPDCTANSKGGVTTQALAKYLKALDTRMAAESRRVLLLAGRLAA  
QSLDTSGLRHVQLAFAFPPTVHPLERGVVQVQVKGHYRQAMLLKAMAALEGQDPSGLQLGLTEALH  
FVAAAWQAVEPSDIAACFREAGFGGGPNATITTSKSEGESEGESEGESEGESEGESEGESEGESE  
EEEEGGEGEELGEEEEVEEEGDVDSDEEEDEEESSEGLEAEDWAQGVVEAGGSFGAYGAQEEA  
QCPTLHFLEGGEDSDSDSEEEDEEEDDEDEDDDDDEEDGDEVVPVPSFGEAMAYFAMVKRYLTSTF  
PIDDRVQSHILHLEHDLVHVTRKNHARQAGVRGLGHQS

### Applications

Standard ELISA test, line/dot assay and microarray assay with positive/negative sera panels.





## Formulation

Lyophilized at 1 mg/mL in storage buffer (20mM Tris, 300-500mM NaCl, 10% Glycerol, PH8.0).

## Reconstitution

Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely.

## Storage

Store lyophilized protein at -20°C. Aliquot reconstituted protein and store at -80°C. Avoid repeated freezing /thawing cycles.

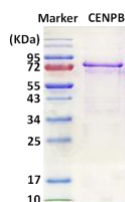
## Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

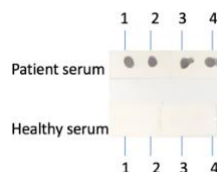
Immunodot analysis to determine functionality of protein.

## SDS-PAGE Gel



## Dot blot assay

### Dot blot analysis of CENPB



Analysis of serum from healthy subjects and patients. Recombinant autoantigens were utilized in this dot-blot assay for validation

## Contact Us

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