



Human Centromere Protein B (CENPB)

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

MSYYHHHHHDYDIPTTENLYFQGAGPKRRQLTFREKSRIIQEVEENPDLRKGEIARRFNIP
PSTLSTILKNKRAILASERKYGVASTCRKTNKLSPYDKLEGLLIAWFQQIRAAGLPVKGIILKEKA
LRIAEEELGMDDFTASNGWLDLRFRRRHGVVSCSGVARARARNAAPRTPAAPASPAVPSEGGG
STTGWRAREEQPPSVAEGYASQDVFSATETSLWYDFLPDQAAGLCGGDGRPRQATQRLSVLL
CANADGSEKLPPLVAGKSAKPRAGQAGLPCDYTANSKGGVTTQALAKYLKALDTRMAAESRRV
LLLAGRLAAQSLDTSGLRHVQLAFFPPGTVHPLERGVVQVKGHYRQAMLLKAMAALLEGQDPS
GLQLGLTEALHFVAAAQAVEPSDIAACFREAGFGGGPNATITTSKSEGEEEEEEEEEEEEEG
EGEEEEEGEEEEEGGEGEELGEEEEVEEEDVDSDEEEEEDEESSSEGLEAEDWAQGVVEA
GGSFAYGAQEEAQCPHLHFLEGGEDSDSDSEEDDEEEDDEDEDDDDDEEDGDEVVPSFG
EAMAYFAMVKRYLTSFPIDDRVQSHILHLEHDLVHVTRKNHARQAGVRGLGHQS

Applications

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





Formulation

Liquid in storage buffer (50mM Tris, 300-500mM NaCl, 10% Glycerol, Protease inhibitor, pH8.0).

Storage

Store at -80°C. Avoid repeated freezing/thawing cycles.

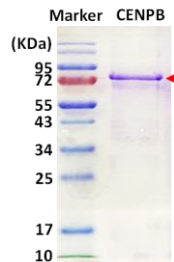
Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

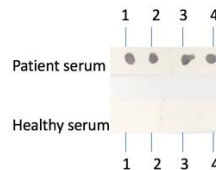
Immunodot analysis to determine functionality of protein.

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

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