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Product datasheet for RC208842

CENPB (NM_001810) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CENPB (NM_001810) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CENPB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC208842 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCCCCAAGAGGCGACAGCTGACGTTCCGGGAGAAGTCACGGATCATCCAGGAGGTGGAGGAGAATC
CGGACCTGCGCAAGGGCGAGATCGCGCGGCGCTTCAACATCCCGCCGTCCACGCTGAGCACGATCCTGAA
GAACAAGCGCGCCATCCTGGCGTCGGAGCGCAAGTACGGGGTGGCCTCCACCTGCCGCAAGACCAACAAG
CTGTCTCCCTACGACAAGCTCGAGGGCTTGCTCATCGCCTGGTTCCAGCAGATCCGCGCCGCCGGCCTGC
CGGTCAAGGGCATCATCCTCAAGGAGAAGGCGCTGCGCATAGCCGAGGAGCTGGGCATGGACGACTTCAC
CGCCTCCAACGGCTGGCTGGACCGCTTCCGCCGGCGCCACGGCGTGGTGTCCTGCAGCGGCGTGGCCCGC
GCCCGCGCGCGAAACGCTGCCCCCCGCACCCCGGCGGCGCCTGCCAGTCCGGCCGCGGTGCCCTCGGAGG
GCAGTGGCGGGAGCACTACTGGTTGGCGCGCTCGGGAGGAGCAGCCGCCGTCGGTGGCCGAGGGCTACGC
CTCGCAGGACGTGTTCAGCGCCACCGAGACCAGTCTATGGTACGACTTCCTGCCCGACCAGGCCGCGGGG
CTGTGCGGAGGCGACGGACGGCCGCGTCAAGCCACCCAGCGCCTGAGCGTCCTGCTATGCGCCAATGCCG
ACGGCAGCGAGAAGCTGCCCCCGCTGGTGGCCGGCAAGTCGGCCAAGCCCCGCGCAGGCCAAGCCGGCCT
GCCCTGCGACTACACCGCCAACTCCAAGGGTGGTGTCACCACCCAGGCCCTGGCCAAGTACTTGAAGGCC
TTGGACACCCGAATGGCTGCAGAGTCTCGCCGGGTCCTGCTGTTGGCCGGCCGCTTGGCTGCCCAGTCCT
TGGACACCTCGGGCCTGCGGCATGTGCAGCTGGCCTTCTTCCCTCCCGGCACCGTGCATCCGCTGGAGAG
GGGAGTGGTCCAGCAGGTGAAGGGCCACTACCGCCAGGCCATGCTGCTCAAGGCCATGGCCGCGCTAGAG
GGCCAGGATCCCTCAGGCCTGCAGCTGGGTCTCACGGAGGCCCTGCACTTTGTGGCTGCCGCCTGGCAGG
CAGTGGAGCCTTCGGACATAGCCGCCTGCTTTCGTGAGGCTGGCTTTGGGGGTGGCCCTAATGCCACCAT
CACCACTTCCCTCAAGAGTGAGGGAGAGGAAGAGGAGGAGGAGGAGGAAGAAGAGGAGGAGGAAGAGGGT
GAAGGAGAGGAAGAGGAGGAGGAAGGGGAGGAGGAGGAGGAGGAAGGGGGGGAAGGAGAGGAATTGGGGG
AGGAAGAGGAGGTGGAGGAGGAGGGTGATGTTGATAGTGATGAAGAAGAGGAGGAAGATGAGGAGAGCTC
CTCGGAGGGCTTGGAGGCTGAGGACTGGGCCCAGGGAGTAGTGGAGGCCGGTGGCAGCTTCGGGGCTTAT
GGTGCCCAGGAGGAAGCCCAGTGCCCTACTCTGCATTTCCTGGAAGGTGGGGAGGACTCTGATTCAGACA
GTGAGGAAGAGGACGATGAGGAAGAGGATGATGAAGATGAAGACGACGATGATGATGAGGAGGATGGTGA
TGAGGTGCCTGTACCCAGCTTTGGGGAGGCCATGGCTTACTTTGCCATGGTCAAGAGGTACCTGACCTCC
TTCCCCATTGATGACCGCGTGCAGAGCCACATCCTCCACTTGGAACACGATCTGGTTCATGTGACCAGGA
AGAACCACGCCAGGCAGGCGGGAGTTCGAGGTCTTGGACATCAAAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

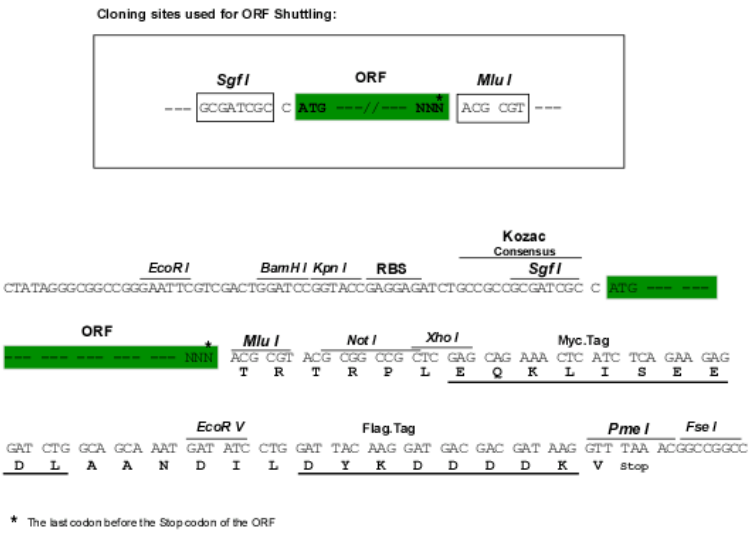
>RC208842 protein sequence
Red=Cloning site Green=Tags(s)

MGPKRRQLTFREKSRIIQEVEENPDLRKGEIARRFNIPPSTLSTILKNKRAILASERKYGVASTCRKTNK
LSPYDKLEGLLIAWFQQIRAAGLPVKGIILKEKALRIAEELGMDDFTASNGWLDRFRRRHGVVSCSGVAR
ARARNAAPRTPAAPASPAAVPSEGSGGSTTGWRAREEQPPSVAEGYASQDVFSATETSLWYDFLPDQAAG
LCGGDGRPRQATQRLSVLLCANADGSEKLPPLVAGKSAKPRAGQAGLPCDYTANSKGGVTTQALAKYLKA
LDTRMAAESRRVLLLAGRLAAQSLDTSGLRHVQLAFFPPGTVHPLERGVVQQVKGHYRQAMLLKAMAALE
GQDPSGLQLGLTEALHFVAAAWQAVEPSDIAACFREAGFGGGPNATITTSLKSEGEEEEEEEEEEEEEEG
EGEEEEEEGEEEEEEGGEGEELGEEEEVEEEGDVDSDEEEEEDEESSSEGLEAEDWAQGVVEAGGSFGAY
GAQEEAQCPTLHFLEGGEDSDSDSEEEDDEEEDDEDEDDDDDEEDGDEVPVPSFGEAMAYFAMVKRYLTS
FPIDDRVQSHILHLEHDLVHVTRKNHARQAGVRGLGHQS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001810

ORF Size: 1797 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_001810.6

RefSeq Size: 2856 bp

RefSeq ORF: 1800 bp

Locus ID: 1059

UniProt ID: P07199

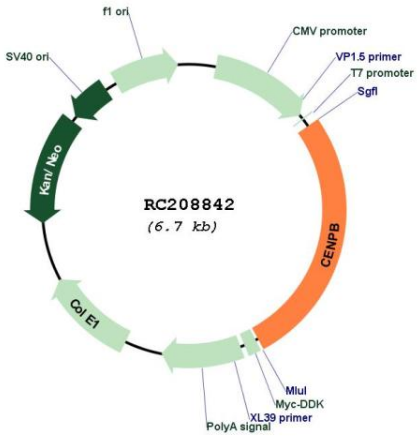
Cytogenetics: 20p13

Protein Families: Druggable Genome

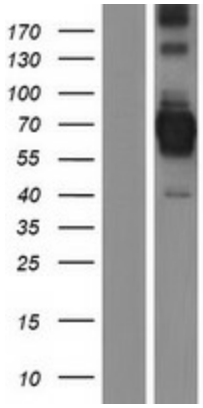
MW: 65.2 kDa

Gene Summary: This gene product is a highly conserved protein that facilitates centromere formation. It is a DNA-binding protein that is derived from transposases of the pogo DNA transposon family. It contains a helix-loop-helix DNA binding motif at the N-terminus, and a dimerization domain at the C-terminus. The DNA binding domain recognizes and binds a 17-bp sequence (CENP-B box) in the centromeric alpha satellite DNA. This protein is proposed to play an important role in the assembly of specific centromere structures in interphase nuclei and on mitotic chromosomes. It is also considered a major centromere autoantigen recognized by sera from patients with anti-centromere antibodies. [provided by RefSeq, Jul 2008]

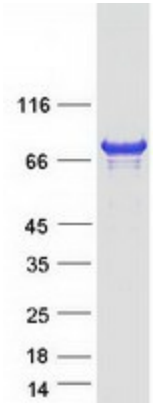
Product images:



Circular map for RC208842



Western blot validation of overexpression lysate (Cat# [LY419732]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208842 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CENPB protein (Cat# [TP308842]). The protein was produced from HEK293T cells transfected with CENPB cDNA clone (Cat# RC208842) using MegaTran 2.0 (Cat# [TT210002]).