

## Product datasheet for RC201515

### HP1 alpha (CBX5) (NM\_012117) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** HP1 alpha (CBX5) (NM\_012117) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** HP1 alpha  
**Synonyms:** HEL25; HP1; HP1A  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC201515 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGGAAAGAAAACCAAGCGGACAGCTGACAGTCTTCTTCAGAGGATGAGGAGGAGTATGTTGTGGAGA  
 AGGTGCTAGACAGGCGCTGGTTAAGGGACAAGTGAATATCTACTGAAGTGAAAGGCTTTTCTGAGGA  
 GCACAATACTTGGGAACCTGAGAAAACTTGGATTGCCCTGAGCTAATTTCTGAATTTATGAAAAAGTAT  
 AAGAAGATGAAGGAGGTGAAAAATAATAAACCCAGGGAGAAGTCAGAAAGTAACAAGAGGAAATCCAATT  
 TCTCAAACAGTGCCGATGACATCAAATCTAAAAAAGAGAGAGCAGAGCAATGATATCGCTCGGGGCTT  
 TGAGAGAGGACTGGAACCAGAAAAGATCATTGGGGCAACAGATTCTGTGGTGATTAATGTTCTTAATG  
 AAATGGAAAGACACAGATGAAGCTGACCTGGTTCTTGCAAAAAGAGCTAATGTGAAATGTCCACAAATTG  
 TGATAGCATTTTATGAAGAGAGACTGACATGGCATGCATATCCTGAGGATGCGGAAAAACAAGAGAAAGA  
 AACAGCAAAGAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC201515 protein sequence  
 Red=Cloning site Green=Tags(s)

MGKTKRTADSSSEDEEEYVVEKVLDRRVVKQVEYLLKWKGFSEEHTWEPEKNLDCPELISEFMKKY  
 KKMKEGENNKPREKSESNNRKSNSADDIKSKKKREQSNDIARGFERGLEPEKIIIGATDSCGDLMLM  
 KWKDTDEADLVLAKEANVKCPQIVIAFYEERL TWHAYPEDAENKEKETAKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6014\\_e01.zip](https://cdn.origene.com/chromatograms/mk6014_e01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_012117

**ORF Size:** 573 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

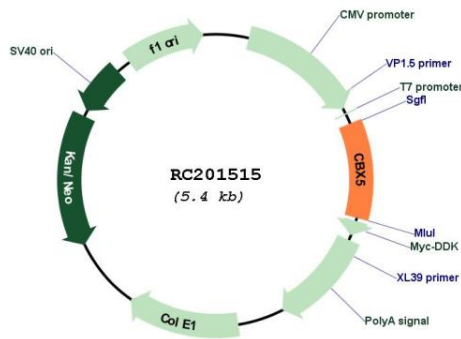
**RefSeq:** [NM\\_012117.3](#)

**RefSeq Size:** 11571 bp

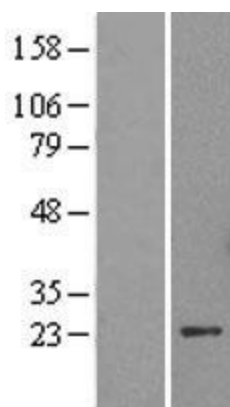
**RefSeq ORF:** 576 bp  
**Locus ID:** 23468  
**UniProt ID:** [P45973](#)  
**Cytogenetics:** 12q13.13  
**Domains:** CHROMO  
**MW:** 22.2 kDa

**Gene Summary:** This gene encodes a highly conserved nonhistone protein, which is a member of the heterochromatin protein family. The protein is enriched in the heterochromatin and associated with centromeres. The protein has a single N-terminal chromodomain which can bind to histone proteins via methylated lysine residues, and a C-terminal chromo shadow-domain (CSD) which is responsible for the homodimerization and interaction with a number of chromatin-associated nonhistone proteins. The encoded product is involved in the formation of functional kinetochore through interaction with essential kinetochore proteins. The gene has a pseudogene located on chromosome 3. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Jul 2008]

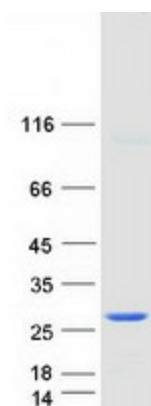
**Product images:**



Circular map for RC201515



Western blot validation of overexpression lysate (Cat# [LY426745]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225209] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CBX5 protein (Cat# [TP301515]). The protein was produced from HEK293T cells transfected with CBX5 cDNA clone (Cat# RC201515) using MegaTran 2.0 (Cat# [TT210002]).