

Product datasheet for **RC220388**

HP1 gamma (CBX3) (NM_016587) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: HP1 gamma (CBX3) (NM_016587) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: HP1 gamma
Synonyms: HECH; HP1-GAMMA; HP1Hs-gamma
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC220388 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCTCCAACAAAACACTACATTGCAAAAAATGGGAAAAAACAGAATGGAAAGAGTAAAAAGTTGAAG
 AGGCAGAGCCTGAAGAATTTGTCGTGGAAAAAGTACTAGATCGACGTGTAGTGAATGGGAAAGTGGATA
 TTTCTGAAGTGAAGGGATTTACAGATGCTGACAATACTTGGAACTGAAGAAAATTTAGATTGTCCA
 GAATTGATTGAAGCGTTTCTTAACCTCAGAAAGCTGGCAAAGAAAAGATGGTACAAAAAGAAAATCTT
 TATCTGACAGTGAATCTGATGACAGCAAATCAAAGAAGAAAAGAGATGCTGCTGACAAACCAAGAGGATT
 TGCCAGAGGTCTTGATCCTGAAAGAATAATTGGTGCCACAGACAGCAGTGGAGAATTGATGTTTCTCATG
 AAATGGAAAGATTGAGTGGAGACTTGGTGTGGCGAAAGAGGCAAATATGAAGTGTCTCAAATTG
 TAATTGCTTTTTATGAAGAGAGACTAATTGGCATTCTTGTCCAGAAGATGAAGCTCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220388 protein sequence
 Red=Cloning site Green=Tags(s)

MASNKTTLQKMGKKQNGKSKKVEEAPEEFVVEKVLDRRVVNGKVEYFLKWKGFADANTWEPEENLDCP
 ELIEAFNSQKAGKEKDGTKRKSLSDESDSKSKKRDAADKPRGFARGLDPERIIGATDSSGELMFLM
 KWKDSDEADLVLAKEANMKCPQIVIAFYEERL TWHSCPEDEAQ

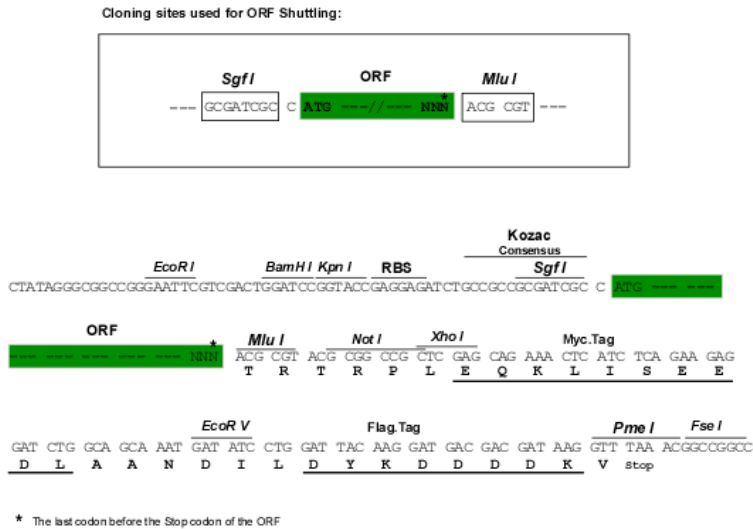
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6299_f08.zip



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016587

ORF Size: 549 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

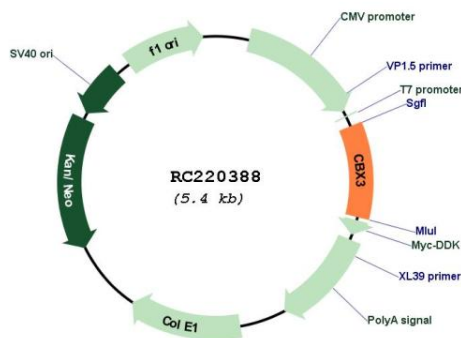
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

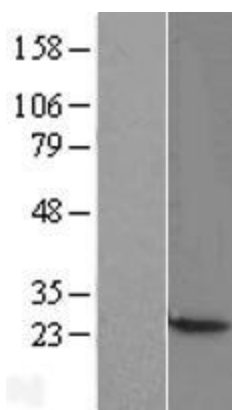
RefSeq: [NM_016587.4](#)
RefSeq Size: 2102 bp
RefSeq ORF: 552 bp
Locus ID: 11335
UniProt ID: [Q13185](#)
Cytogenetics: 7p15.2
Domains: CHROMO
Protein Families: Druggable Genome, Transcription Factors
MW: 20.8 kDa

Gene Summary: At the nuclear envelope, the nuclear lamina and heterochromatin are adjacent to the inner nuclear membrane. The protein encoded by this gene binds DNA and is a component of heterochromatin. This protein also can bind lamin B receptor, an integral membrane protein found in the inner nuclear membrane. The dual binding functions of the encoded protein may explain the association of heterochromatin with the inner nuclear membrane. This protein binds histone H3 tails methylated at Lys-9 sites. This protein is also recruited to sites of ultraviolet-induced DNA damage and double-strand breaks. Two transcript variants encoding the same protein but differing in the 5' UTR, have been found for this gene. [provided by RefSeq, Mar 2011]

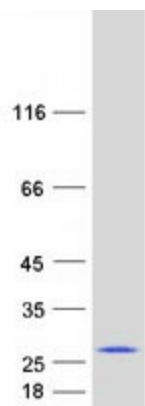
Product images:



Circular map for RC220388



Western blot validation of overexpression lysate (Cat# [LY413887]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220388 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CBX3 protein (Cat# [TP320388]). The protein was produced from HEK293T cells transfected with CBX3 cDNA clone (Cat# RC220388) using MegaTran 2.0 (Cat# [TT210002]).