

Product datasheet for **RG201478**

HP1 gamma (CBX3) (NM_007276) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: HP1 gamma (CBX3) (NM_007276) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: CBX3
Synonyms: HECH; HP1-GAMMA; HP1Hs-gamma
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG201478 representing NM_007276
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCTCCAACAAAACACTACATTGCAAAAAATGGGAAAAAACAGAATGGAAAGAGTAAAAAGTTGAAG
AGGCAGAGCCTGAAGAATTTGTCGTGGAAAAAGTACTAGATCGACGTGTAGTGAATGGGAAAGTGAATA
TTTCTGAAGTGAAGGGATTTACAGATGCTGACAATACTTGGGAACCTGAAGAAAATTTAGATTGTCCA
GAATTGATTGAAGCGTTTCTTAACCTCAGAAAAGCTGGCAAAGAAAAGATGGTACAAAAAGAAAATCTT
TATCTGACAGTGAATCTGATGACAGCAAATCAAAGAAGAAAAGAGATGCTGCTGACAAACCAAGAGGATT
TGCCAGAGGTCTTGATCCTGAAAGAATAATTGGTGCCACAGACAGCAGTGGAGAATTGATGTTTCTCATG
AAATGGAAAGATTGAGTGGCAGACTTGGTGTGGCGAAAAGAGGCAAATATGAAGTGTCTCAAATTC
TAATTGCTTTTTATGAAGAGAGACTAATTGGCATTCTTGTCCAGAAGATGAAGCTCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG201478 representing NM_007276
Red=Cloning site Green=Tags(s)

MASNKTLQKMGKKQNGKSKKVEEAPEEFVVEKVLDRRVVNGKVEYFLKWKGFADANTWEPEENLDCP
ELIEAFLNSQKAGKEKDGTKRKSLSDESDDSKSKKRDAADKPRGFARGLDPERIIGATDSSGELMFLM
KWKDSDEADLVLAKEANMKCPQIVIAFYEEERL TWHSPEDEAQ

TRTRPLE - GFP Tag - V

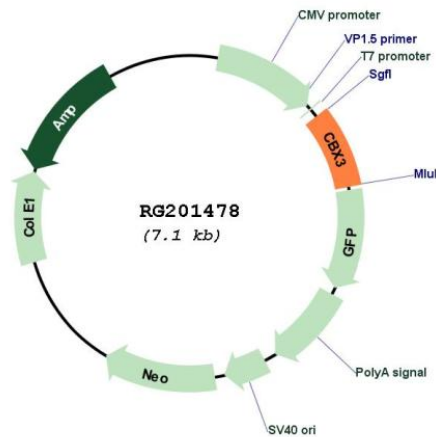
Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:


ACCN: NM_007276

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_007276.5](#)

RefSeq Size: 1837 bp

RefSeq ORF: 552 bp

Locus ID: 11335

UniProt ID: [Q13185](#)

Cytogenetics: 7p15.2

Domains: CHROMO

Protein Families: Druggable Genome, Transcription Factors

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]