

## Product datasheet for **RC203814**

### **HIST1H2AK (HIST1H2AG) (NM\_021064) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** HIST1H2AK (HIST1H2AG) (NM\_021064) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** HIST1H2AK  
**Synonyms:** H2A.1b; H2A/p; H2AC13; H2AC15; H2AC16; H2AC17; H2AFP; H2AG; HIST1H2AG; pH2A/f  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC203814 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCTGGACGTGGCAAGCAGGGAGGCAAAGCCCGCTAAGGCCAAGACTCGCTCTTCTAGGGCCGGT  
 TCCAGTCCCCGTGGCCGAGTGCACCGCTGCTCCGCAAAGGCAACTATGCCGAGCGGGTCGGGGCCGG  
 CGCGCCGTGTATCTGGCAGCGGTGCTGGAGTACCTGACCGCGGATCCTGGAAGTGGCGGCAACGCG  
 GCCCGCACAACAAGAAGACCCGCATCATCCCGCTCATCTCCAAGTGGCCATCCGCAACGACGAGGAGC  
 TCAACAAGCTGCTGGCAAAGTACCATCGCACAGGGCGGTGCTCTGCCAACATTACAGGCCGTGCTACT  
 GCCAAAAAGACTGAGAGCCACCACAAGCGAAGGCAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC203814 protein sequence  
 Red=Cloning site Green=Tags(s)

MSGRGKQGGKARAKAKTRSSRAGLQFPVGRVHLLRKGNYAERVGAGAPVYLAAVLEYLTAEILELAGNA  
 ARDNKTRIIPRHLQLAIRNDEELNKLKGVTIAQGGVLPNIQAVLLPKKTESHKAKGK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6310\\_e05.zip](https://cdn.origene.com/chromatograms/mk6310_e05.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_021064

**ORF Size:** 390 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](mailto: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.

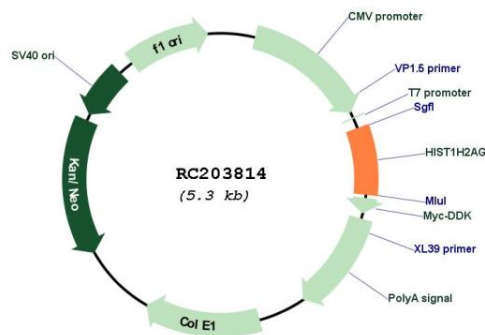
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

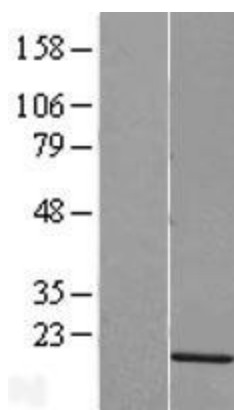
**RefSeq:** [NM\\_021064.5](#)  
**RefSeq Size:** 498 bp  
**RefSeq ORF:** 393 bp  
**Locus ID:** 8969  
**UniProt ID:** [P0C0S8](#)  
**Cytogenetics:** 6p22.1  
**Protein Pathways:** Systemic lupus erythematosus  
**MW:** 14.1 kDa

**Gene Summary:** Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene is intronless and encodes a replication-dependent histone that is a member of the histone H2A family. Transcripts from this gene lack polyA tails but instead contain a palindromic termination element. This gene is found in the histone microcluster on chromosome 6p21.33. [provided by RefSeq, Aug 2015]

### Product images:



Circular map for RC203814



Western blot validation of overexpression lysate (Cat# [LY412129]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203814 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).