

## **Product datasheet for RC201434**

## OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

## Histone H2A.X (H2AFX) (NM\_002105) Human Tagged ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** Histone H2A.X (H2AFX) (NM\_002105) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: Histone H2A.X

Synonyms: H2A.X; H2A/X; H2AFX

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)ORF Nucleotide>RC201434 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTCGGGCCGCGCAAGACTGGCGGCAAGGCCCGCGCCAAGGCCAAGTCGCGCTCGTCGCGCGCCGGCCCTCCAGTTCCCAGTGGGCCGGCAAGGCCCAAGGCCAAGTCCCAGTGGGCCGGCAAGGCCGCGCGCCGCCACAGTGTACCTGGCGCGGCAGTGCTGCGGAGTACCTCACCGCTGAGATCCTGGAGCTGGCGGGCAATGCGGCCGCGACAACAAGAAGACGCGAATCATCCCCCGCCACCTGCAGCTGGCCATCCGCAACGACGAGGAGCCTCAACAAGCTGCTGGGCGGCGTGACGATCGCCCAGGGAGGCGTCCTGCCCAACATCCAGGCCGTGCTGCTGCCCAAGAAGACCAGCGCCACCGTGGGGCCCCCCAGGGCCCCCCAGGCCCCCCAGGCCTCCCCAAGAAGACCACCCAGGCCCTCCCCAAGAAGACCACCCCAGGCCTCCCCAAGGAGTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201434 protein sequence

Red=Cloning site Green=Tags(s)

MSGRGKTGGKARAKAKSRSSRAGLQFPVGRVHRLLRKGHYAERVGAGAPVYLAAVLEYLTAEILELAGNA ARDNKKTRIIPRHLQLAIRNDEELNKLLGGVTIAQGGVLPNIQAVLLPKKTSATVGPKAPSGGKKATQAS

QEY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

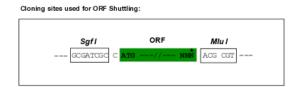
**Chromatograms:** https://cdn.origene.com/chromatograms/mk6052 a05.zip

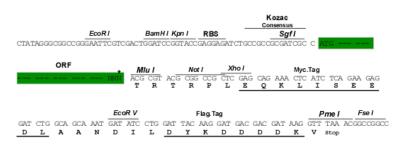




**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_002105

ORF Size: 429 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: <u>NM 002105.3</u>

RefSeq Size: 1651 bp RefSeq ORF: 432 bp



Locus ID: 3014

**UniProt ID:** P16104

Cytogenetics: 11q23.3

Domains: H2A, histone

**Protein Families:** Druggable Genome

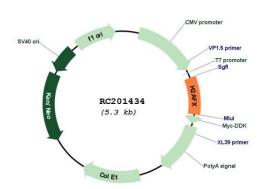
**Protein Pathways:** Systemic lupus erythematosus

MW: 15.1 kDa

**Gene Summary:** Histones are basic nuclear proteins that are responsible for the nucleosome structure of the

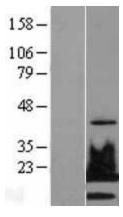
chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene encodes a replication-independent histone that is a member of the histone H2A family, and generates two transcripts through the use of the conserved stemloop termination motif, and the polyA addition motif. [provided by RefSeq, Oct 2015]

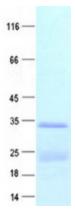
## **Product images:**



Circular map for RC201434







Western blot validation of overexpression lysate (Cat# [LY400770]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201434 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified H2AFX protein (Cat# [TP301434]). The protein was produced from HEK293T cells transfected with H2AFX cDNA clone (Cat# RC201434) using MegaTran 2.0 (Cat# [TT210002]).