

Product datasheet for RC203699

OriGene Technologies, Inc.

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Macro H2A.2 (H2AFY2) (NM_018649) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Macro H2A.2 (H2AFY2) (NM 018649) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: Macro H2A.2

Synonyms: H2AFY2

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

ORF Nucleotide >RC203699 ORF sequence

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTCGGGCCGGAGTGGGAAGAAGAAATGTCCAAGCTGTCCCGTTCAGCTAGGGCAGGTGTCATCTTTC CAGTGGGGAGGCTGATGCGTTATCTGAAGAAAGGGACGTTCAAGTACCGGATCAGCGTGGGCCCCCTGT CTACATGGCGGCAGTCATTGAGTACCTGGCAGCGGAAATTCTAGAATTGGCCGGCAATGCCGCGAGGGAC AACAAGAAGGCCCGGATAGCCCCGAGACACATCTTGCTGGCAGTTGCCAATGACGAGGAGCTCAACCAGC TGCTAAAAGGAGTGACCATCGCCAGTGGAGGCGTCCTGCCCAGAATTCACCCCGAACTGCTGGCCAAAAA GCGAGGGACCAAAGGCAAGTCGGAAACGATCCTCTCCCCACCCCCAGAGAAAAGAGGCAGGAAGGCCACG TCAGGCAAGAAGGGGGGGAAGAAATCCAAGGCTGCCAAACCACGGACGTCCAAAAAGTCCAAACCAAAGG TTCTAAGAGCCTTGTTCTGGGACAGAAGCTGTCCTTAACCCAGAGTGACATCAGCCATATTGGCTCCATG AGAGTGGAGGGCATTGTCCACCCAACCACAGCCGAAATTGACCTCAAAGAAGATATAGGTAAAGCCTTGG AAAAGGCTGGGGGAAAAGAGTTCTTGGAAACGGTAAAGGAGCTTCGCAAATCCCAAGGCCCTTTGGAAGT CGCCGAAGCCGCCGTCAGCCAATCCAGTGGACTCGCAGCCAAATTTGTCATCCACTGTCACATCCCTCAG TGGGGCTCCGACAAATGTGAAGAACAGCTTGAAGAGACCATCAAAAACTGCCTGTCAGCGGCGGAGGACA AGAAGCTAAAGTCCGTCGCGTTCCCGCCTTTCCCCAGCGGCAGAAACTGCTTTCCCAAACAGACTGCGGC CCAGGTGACCCTCAAAGCCATCTCAGCCCACTTTGATGACTCGAGCGCGTCCTCGCTGAAGAACGTGTAC TTCCTGCTCTTCGACAGCGAGAGCATCGGCATCTACGTGCAGGAGATGGCCAAGCTCGACGCCAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA





Protein Sequence: >RC203699 protein sequence

Red=Cloning site Green=Tags(s)

MSGRSGKKKMSKLSRSARAGVIFPVGRLMRYLKKGTFKYRISVGAPVYMAAVIEYLAAEILELAGNAARD NKKARIAPRHILLAVANDEELNQLLKGVTIASGGVLPRIHPELLAKKRGTKGKSETILSPPPEKRGRKAT SGKKGGKKSKAAKPRTSKKSKPKDSDKEGTSNSTSEDGPGDGFTILSSKSLVLGQKLSLTQSDISHIGSM RVEGIVHPTTAEIDLKEDIGKALEKAGGKEFLETVKELRKSQGPLEVAEAAVSQSSGLAAKFVIHCHIPQ WGSDKCEEQLEETIKNCLSAAEDKKLKSVAFPPFPSGRNCFPKQTAAQVTLKAISAHFDDSSASSLKNVY FLLFDSESIGIYVQEMAKLDAK

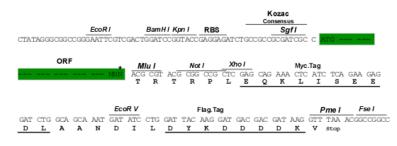
TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

Chromatograms: https://cdn.origene.com/chromatograms/mk6307 d06.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

ACCN: NM 018649

ORF Size: 1116 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.

RefSeq: <u>NM 018649.3</u>

RefSeq Size: 2181 bp
RefSeq ORF: 1119 bp
Locus ID: 55506
UniProt ID: Q9P0M6
Cytogenetics: 10q22.1

Domains: H2A, A1pp, histone

Protein Pathways: Systemic lupus erythematosus

MW: 40.1 kDa

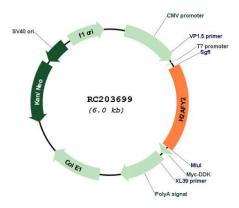
Gene Summary: Histones are basic nuclear proteins that are responsible for the nucleosome structure of the

chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. This gene encodes a replication-independent histone that is a member of the histone H2A family. It replaces conventional H2A histones in a subset of nucleosomes where it represses transcription and may participate in stable X chromosome inactivation. [provided

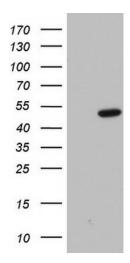
by RefSeq, Oct 2015]



Product images:

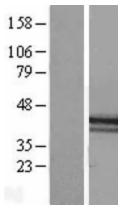


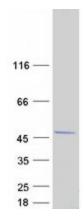
Circular map for RC203699



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY H2AFY2 (Cat# RC203699, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-H2AFY2(Cat# [TA803386]). Positive lysates [LY412957] (100ug) and [LC412957] (20ug) can be purchased separately from OriGene.







Western blot validation of overexpression lysate (Cat# [LY412957]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203699 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified H2AFY2 protein (Cat# [TP303699]). The protein was produced from HEK293T cells transfected with H2AFY2 cDNA clone (Cat# RC203699) using MegaTran 2.0 (Cat# [TT210002]).