

Product datasheet for **MR221870**

Macroh2a1 (NM_001159514) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Macroh2a1 (NM_001159514) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Macroh2a1
Synonyms: H2af; H2AF12; H2AF12M; H2afy; MACROH2; mH2a; mH2a1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR221870 representing NM_001159514
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGAGCCGCGCGGGAAGAAGAAATCCACCAAGACCTCCCGGTCAGCCAAGGCCGGAGTCATCTTCC
CTGTGGGACGCATGCTTCGGTACATCAAGAAAGGCCACCCTAAGTATAGGATCGGAGTGGGGCACCTGT
GTACATGGCTGCTGTCTGGAGTACCTGACTGCTGAGATCCTGGAGCTGGCTGGCAATGCAGCAAGAGAC
AACAAGAAGGGACGGGTACACCCCGGCACATCCTGTTAGCTGTGGCCAATGATGAAGAGCTAAACCAGC
TGCTAAAGGGTGTCAACATAGCCAGCGGGGCGTGTGGCCAATATCCATCCTGAGTTGCTAGCGAAGAA
GCGAGGATCCAAGGAAAATTGGAAGCCATCATCACGCCCTCCGCCGGCCAAAAGGCCAAGTCTCCATCC
CAGAAGAAGCCAGTGGCTAAGAAGACAGGAGGCAAGAAAGGGGCCCGGAAGTCTAAGAAGAAGCAGGGAG
AAGTGAGCAAGGCGGCCAGCGCAGACAGTACGACGGAGGGCAGCCTACAGACGGCTTCACTGTCCTCTC
CACCAAGAGCCTTCTCTCGGCCAGAAGTTGCAAGTTGTTGAGGCTGACATTGCCTCGATCGACAGTGAT
GCTGTCGTTACCCGACAAACTGACTTCTACACCGGTGGTGAAGTAGGAAACACACTGGAGAAGAAGG
GCGGCAAGGAGTTGTAGAAGCTGTTCTGGAACCCGAAAAAGAACGGGCCCTGGAGGTAGCTGGAGC
TGCTATTAGTGCAGGCCATGGCCTGCCTGCCAAGTTGTGATCCACTGTAATAGTCTGTCTGGGGTGCA
GACAAATGTGAAGAACTTCTAGAAAAGACGGTGA AAAACTGCTTGGCTCTAGCTGATGACAGAAAAGCTGA
AATCCATCGCCTTCCATCCATTGGCAGCGGCAGGAACGGTTCCCGAAGCAGACAGCGGCCAGCTCAT
TCTGAAGGCCATCTCCAGCTACTTTGTCTCCACGATGTCCTCCTCCATAAAACTGTGTACTTCATGCTT
TTTGACAGTGAGAGCATAGGTATCTATGTGCAGGAAATGGCCAAGCTGGACGCCAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >MR221870 representing NM_001159514
 Red=Cloning site Green=Tags(s)

MSSRGGKKKSTKTSRSKAGVIFPVGRMLRYIKKGHPKYRIGVGPVYMAAVLEYLTAEILELAGNAARD
 NKKGRVTPRHILLAVANDEELNQLLKGVTIASGGVLPNIHPELLAKKRGSKGKLEAIITPPPAKKA⁺SPS
 QKKPVAKKTGGKKGARKSKKKQGEVSKAASADSTTEGTPDGFVTLSTKSLFLGQKLQVVQADIASIDSD
 AVVHPTNTDFYTGGEVGN⁺TLEKKGGKEFVEAVLELRKKNGPLEVAGAAISAGHGLPAKFVIHCNSPVWGA
 DKCEELLEKT⁺VKNCLALADDRKLSIAFPSIGSGRNGFPKQ⁺TAAQLILKAISSYFVSTMSSSIKTVYFML
 FDSESIGIYVQEMAKLDAN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001159514

ORF Size: 1107 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: [NM_001159514.1](#), [NP_001152986.1](#)

RefSeq Size: 1969 bp

RefSeq ORF: 1110 bp

Locus ID: 26914

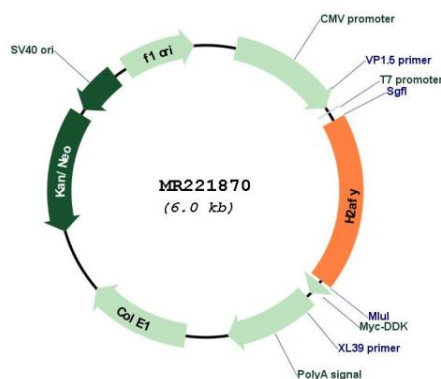
UniProt ID: [Q9QZQ8](#)

Cytogenetics: 13 B1

MW: 39.7 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 participates in stable X chromosome inactivation. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Nov 2015]

Product images:



Circular map for MR221870