

## Product datasheet for **SC124303**

### MACROH2A1 (NM\_138610) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MACROH2A1 (NM_138610) Human Untagged Clone
Tag:	Tag Free
Symbol:	MACROH2A1
Synonyms:	H2A.y; H2A/y; H2AF12M; H2AFY; MACROH2A1.1; macroH2A1.2; mH2A1
Mammalian Cell Selection:	Neomycin
Vector:	<u><a href="#">PCMV6-Neo</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_138610 edited  
 GGAGAGCGCGGGCCGCGGGCGGGGAAGCGAAGAGGCGGGCGGGCCAGCGAGGAGCGCGG  
 AGAGAAAAGGCGCGAGCGGCCAGGAGGGCTCAGGCCGAGACACCTTGACGCTGCCGCCG  
 CGCCACCGAGCCCGCTGTGCTCACTGATCCGCCTCCAGGGCCACCGCCATGTCGAGCC  
 GCGGTGGGAAGAAGAAGTCCACCAAGACGTCCAGGTCTGCCAAAGCAGGAGTCATCTTTC  
 CCGTGGGGCGGATGCTGCGGTACATCAAGAAAGGCCACCCCAAGTACAGGATTGGAGTGG  
 CTGGCAATGCAGCGAGAGACAACAAGAAGGGACGGGTACACCCCGGCACATCCTGCTGG  
 CTGTGGCCAATGATGAAGAGCTGAATCAGCTGCTAAAAGGAGTACCATAGCCAGTGGGG  
 GTGTGTTACCAACATCCACCCGAGTTGCTAGCGAAGAAGCGGGGATCCAAAGGAAAGT  
 TGAAGCCATCATCACACCACCCCGAGCCAAAAGGCCAAGTCTCCATCCAGAAGAAGC  
 CTGTATCTAAAAAGCAGGAGGCAAGAAAGGGGCCGGAATCCAAGAAGAAGCAGGGTG  
 AAGTCAGTAAGGCAGCCAGCGCCGACAGCACAACCGAGGGCACACCTGCCGACGGCTTCA  
 CAGTCTCTCCACCAAGAGCCTTCTCCTGGCCAGAAGCTGAACCTTATTCACAGTGAAA  
 TCAGTAATTTAGCCGGCTTTGAGGTGGAGGCCATAATCAATCCTACCAATGCTGACATTG  
 ACCTTAAAGATGACCTAGGAAACACGCTGGAGAAGAAAGTGGCAAGGAGTTTGTGGAAG  
 CTGTCTTGGAACTCCGGAAGAAAGAACGGGCCCTTGAAGTAGCTGGAGCTGCTGTGACGG  
 CAGGCCATGGCCTGCCTGCCAAGTTTGTGATCCACTGTAATAGTCCAGTTTGGGGTGCAG  
 ACAAGTGTGAAGAAGTCTGGGAAAGACAGTGAAAAACTGCTTGGCCCTGGCTGATGATA  
 AGAAGCTGAAATCCATTGCATTTCCATCCATCGGCAGCGGCAGGAACGGTTTTCCAAAGC  
 AGACAGCAGCTCAGCTGATTCTGAAGGCCATCTCCAGTTACTTCGTGTCTACAATGTCCT  
 CTTCCATCAAAACGGTGTACTTCGTGCTTTTTGACAGCGAGAGTATAGGCATCTATGTGC  
 AGGAAATGGCCAAGCTGGACGCCAACTAGGCTGAGCAATGACAGAACCAGCTGCACCATG  
 TACCCACCTTCAGTTTAAAGAAAAAATAATCCCTTCACTCTACTGGGAGGTGGGA  
 CCCCTTTCATTTTCAGTTTTGCTCATCTAGGGAATAAGGCTTTGGTTTCCAGTTTAAT  
 TGTTTTGACCTTCTAAATGTTTTATGTTAGCACTGATAGTTGGCATTACTGTTGTTA  
 AGCACTGTGTTCCAGACCGTGTCTGACTTAGTGTAACTAGGAGATTTTATAGTTTTATT  
 TTAATGAAACCTGATTGACGCACAGCAGTGGGAGAACAGCGTCTTTACCTGTCACCG  
 AAGCCAGGAAGCCCGTTTGAAGCGTGTGTTGTGGTGTCTTATTGTACATCCTCCAGTG  
 GCGTTCTTTTACTCTAATGTTCTTTTGGTTTCCCCCTCAGAAGAATCATGAATTTGCA  
 ACAGACCTAATTTTTGGTTACTTTTTGTCTTATTGATGGATTTGAAAATGAAAGATTTAA  
 TAAGGCAAGCAGAATCTGTTGCTTAATTATATTTGCAATTTGGAATTTGTGTGAGTT  
 GATTTAGTAAAATGTTAAACCGTAAAAAATAAAAAAAAAA

- Restriction Sites:** Please inquire
- ACCN:** NM\_138610
- Insert Size:** 1900 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** The ORF of this clone has been fully sequenced and found to contain one SNP compared with NM\_138610.1.
- 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\\_138610.1](#), [NP\\_613258.1](#)

**RefSeq Size:** 1899 bp

**RefSeq ORF:** 1119 bp

**Locus ID:** 9555

**UniProt ID:** [O75367](#)

**Cytogenetics:** 5q31.1

**Domains:** H2A, A1pp, histone

**Protein Pathways:** Systemic lupus erythematosus

**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, Oct 2015]

Transcript Variant: This variant (3) is the longest transcript and encodes the longest isoform (3). Isoform 3, also known as macroH2A1.2, differs from isoform 2 by a single amino acid.