

Product datasheet for **MG202042**

Hmgb3 (NM_008253) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hmgb3 (NM_008253) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Hmgb3
Synonyms: Hmg2a; Hmg4
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG202042 representing NM_008253
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTAAAGGTGACCCCAAGAAACCAAGGGCAAGATGTCTGCTTATGCCTTCTTTGTGCAGACATGCA
 GGAAGAACATAAGAAGAAAAACCCAGAGGTTCCCGTCAATTTTCTGCTGAGTTCTCCAAGAAGTCTCGGA
 GAGGTGGAAGACCATGTCTAGCAAAGAGAAATCAAAGTTGATGAAATGGCAAAGGCAGATAAAGTCCGA
 TATGATCGGGAGATGAAAGATTATGGACCAGCTAAAGGAGGCAAGAAGAAGAAGGACCCAAATGCCCCCA
 AAAGACCTCCGCTGGATTTTTCTTATTCTGCTCTGAATCCGCCCAAGATCAAATCCACAACCCTGG
 CATCTCCATTGGAGATGTGGCAAAAAGCTGGGTGAGATGTGGAATAACTTAAGTGACAATGAAAAGCAG
 CCTTATGTACCAAGGCAGCAAAGCTGAAGGAGAAGTATGAGAAGGATGTTGCTGACTATAAGTCTAAAG
 GGAAGTTTGTGGTGCCAAGGGTCTGCTAAAGTTGCCCGGAAAAAGGTGGAAGAAGAGGAAGAGGAGGA
 GGAAGAGGAAGAAGAGGAGGAGGAAGAGGAGGAAGATGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG202042 representing NM_008253
 Red=Cloning site Green=Tags(s)

MAKGDPKPKGKMSAYAFFVQTCREEHKKKNPEVPVNF AEF SKKCSERWKTMSKEKSKFDEMAKADKVR
 YDREMKDYGPAKGGKKKDPNAPKRPPSGFFLCSEFRPKIKSTNPGISIGDVAKKLGEMWNNLSDNEKQ
 PYVTKAALKKEKYEKDVADYKSKGKFDGAKGPAKVARKKVEEEEEEEEEEEEEEEEEDE

TRTRPLE - GFP Tag - V

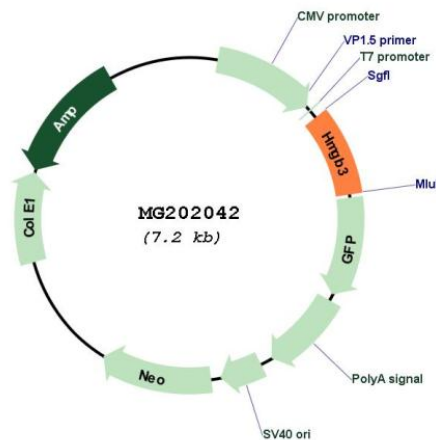
Restriction Sites: Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_008253

ORF Size: 600 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_008253.4](#), [NP_032279.1](#)

RefSeq Size: 1656 bp

RefSeq ORF: 603 bp

Locus ID: 15354

UniProt ID: [O54879](#)

Cytogenetics: X A7.3

Gene Summary: Multifunctional protein with various roles in different cellular compartments. May act in a redox sensitive manner. Associates with chromatin and binds DNA with a preference to non-canonical DNA structures such as single-stranded DNA. Can bend DNA and enhance DNA flexibility by looping thus providing a mechanism to promote activities on various gene promoters (By similarity). Proposed to be involved in the innate immune response to nucleic acids by acting as a cytoplasmic promiscuous immunogenic DNA/RNA sensor (PubMed:19890330). Negatively regulates B-cell and myeloid cell differentiation. In hematopoietic stem cells may regulate the balance between self-renewal and differentiation. Involved in negative regulation of canonical Wnt signaling (PubMed:12714519, PubMed:15358624, PubMed:16945912).[UniProtKB/Swiss-Prot Function]