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Product datasheet for MR228466

Hmgb3 (NM_001293625) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hmgb3 (NM_001293625) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hmgb3
Synonyms:	Hmg2a; Hmg4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR228466 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTAAAGGTGACCCCAAGAAACCAAAGGGCAAGATGTCTGCTTATGCCTTCTTTGTGCAGACATGCA
GGGAAGAACATAAGAAGAAAAACCCAGAGGTTCCCGTCAATTTTGCTGAGTTCTCCAAGAAGTGCTCGGA
GAGGTGGAAGACCATGTCTAGCAAAGAGAAATCAAAGTTTGATGAAATGGCAAAGGCAGATAAAGTCCGA
TATGATCGGGAGATGAAAGATTATGGACCAGCTAAAGGAGGCAAGAAGAAGAAGGACCCAAATGCCCCCA
AAAGACCTCCGTCTGGATTTTTCTTATTCTGCTCTGAATTCCGCCCCAAGATCAAATCCACAAACCCTGG
CATCTCCATTGGAGATGTGGCAAAAAAGCTGGGTGAGATGTGGAATAACTTAAGTGACAATGAAAAGCAG
CCTTATGTCACCAAGGCAGCAAAGCTGAAGGAGAAGTATGAGAAGGATGTTGCTGACTATAAGTCTAAAG
GGAAGTTTGATGGTGCCAAGGGTCCTGCTAAAGTTGCCCGGAAAAAGGTGGAAGAAGAGGAAGAGGAGGA
GGAAGAGGAAGAAGAGGAGGAGGAAGAGGAGGAAGATGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR228466 protein sequence
Red=Cloning site Green=Tags(s)

MAKGDPKKPKGKMSAYAFFVQTCREEHKKKNPEVPVNFAEFSKKCSERWKTMSSKEKSKFDEMAKADKVR
YDREMKDYGPAKGGKKKKDPNAPKRPPSGFFLFCSEFRPKIKSTNPGISIGDVAKKLGEMWNNLSDNEKQ
PYVTKAAKLKEKYEKDVADYKSKGKFDGAKGPAKVARKKVEEEEEEEEEEEEEEEEDE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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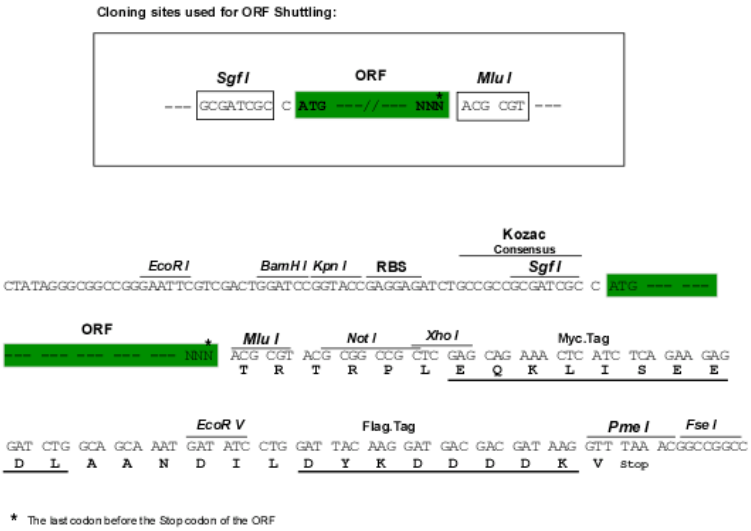
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001293625

ORF Size: 603 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_001293625.1, NP_001280554.1

RefSeq Size: 1565 bp

RefSeq ORF: 603 bp

Locus ID: 15354

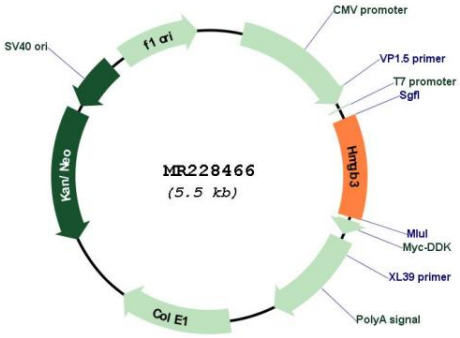
UniProt ID: O54879

Cytogenetics: X A7.3

MW: 23 kDa

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 bent 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]

Product images:



Circular map for MR228466