

Product datasheet for **MC221924**

Hif1a (NM_010431) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hif1a (NM_010431) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hif1a
Synonyms:	AA959795; bHLHe7; bHLHe78; HIF-1; HIF-1-alpha; HIF1; HIF1-alpha; HIF1alpha; MO; MOP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221924 representing NM_010431
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGGCGCCGGCGGCGAGAACGAGAAGAAAAAGATGAGTTCTGAACGTCGAAAAAGAAAGTCTAGAG
 ATGCAGCAAGATCTCGGGCAAGCAAAAGAGTCTGAAGTTTTTATGAGCTTGCTCATCAGTTGCCACTTCC
 CCACAATGTGAGCTCACATCTTGATAAAGCTTCTGTTATGAGGCTCACCATCAGTTATTTACGTGTGAGA
 AAACCTTCTGGATGCCGGTGGTCTAGACAGTGAAGATGAGATGAAGGCACAGATGGACTGTTTTATCTGA
 AAGCCCTAGATGGCTTTGTGATGGTGCTAACAGATGACGGCGACATGGTTTACATTTCTGATAACGTGAA
 CAAATACATGGGGTTAACTCAGTTTGAACAACTGGACACAGTGTGTTGATTTTACTCATCCATGTGAC
 CATGAGGAAATGAGAGAAATGCTTACACACAGAAATGGCCAGTGAGAAAAGGGAAAGAACTAAACACAC
 AGCGGAGCTTTTTCTCAGAATGAAGTGCACCCTAACAGCCGGGGGAGGACGATGAACATCAAGTCAGC
 AACGTGGAAGGTGCTTCACTGCACGGGCCATATTCATGTCTATGATACCAACAGTAACCAACCTCAGTGT
 GGGTACAAGAAACCACCCATGACGTGCTTGGTGTGATTTGTGAACCCATTCTCATCCGTCAAATATTG
 AAATTCCTTTAGATAGCAAGACATTTCTCAGTCGACACAGCCTCGATATGAAATTTTCTTACTGTGATGA
 AAGAATTAAGTGTGATGGGTTATGAGCCGGAAGAACTTTGGGCCGCTCAATTTATGAATATTATCAT
 GCTTTGGATTCTGATCATCTGACCAAACTCACCATGATATGTTTACTAAAGGACAAGTCACCACAGGAC
 AGTACAGGATGCTTGCCAAAAGAGGTGGATATGTCTGGTTGAACTCAAGCAACTGTATATAAATAC
 GAAGAATCCCAGCCACAGTGCATTGTGTGTGTAATTATGTTGTAAGTGGTATTATTGAGCAGGACTTG
 ATTTTCCCTTCAACAAACAGAATCTGTGCTCAAACAGTTGAATCTTCAGATAAGAAGATGACTCAGC
 TGTTACCAAAAGTTGAATCAGAGGCTACAAGTGCCTTTTTGATAAGCTTAAGAAGGAGCCTGATGCTCT
 CACTCTGCTGGCTCCAGCTGCCGGCGACACCATCATCTCTGGATTTTGGCAGCGATGACACAGAAACT
 GAAGATCAACAACTTGAAGATGTTCCATTATATAATGATGTAATGTTTCCCTCTTCTAATGAAAAATTAA
 ATATAACCTGGCAATGTCTCCTTACCTTCATCGGAACTCCAAAGCCACTTCGAAGTAGTGCTGATCC
 TGCCTGAATCAAGAGTTGCATTAATAATGAAATCAAGTCCAGAGTCACTGGGACTTTCTTTTACCATG
 CCCCAGATTCAAGATCAGCCAGCAAGTCTTCTGATGGAAGCACTAGACAAAGTTCACCTGAGAGACTTC
 TTCAGGAAAACGTAACACTCCTAACTTTCCAGCCTAACAGTCCCAGTGAATATTGCTTTGATGTGGA
 TAGCGATATGGTCAATGTATTCAAGTTGGAAGTGGTGGAAAACTGTTTGCTGAAGACACAGAGGCAAAAG
 AATCCATTTTCAACTCAGGACACTGATTTAGACTTGGAGATGCTGGCTCCCTATATCCCAATGGATGATG
 ATTTCCAGTTACGTTCCCTTTGATCAGTTGTACCATTAGAGAGCAATTCTCCAAGCCCTCCAAGTATGAG
 CACAGTTACTGGTTCCAGCAGACCCAGTTACAGAAACCTACCATCACTGCCACTGCCACCACAACCTGCC
 ACCACTGATGAATCAAAAACAGAGACGAAGGACAATAAAGAAGATATTAATACTGATTGCATCTCCAT
 CTTCTACCAAGTACCTCAAGAAACGACCCTGCTAAGGCATCAGCATACAGTGGCACTCACAGTCGGAC
 AGCCTCACCAGACAGAGCAGGAAAGAGAGTATAGAACAGACAGACAAAGCTCATCCAAGGAGCCTTAAC
 CTGTCTGCCACTTTGAATCAAAGAAATACTGTTCTGAGGAAGAATTAACCCAAAGACAATAGCTTCGC
 AGAATGCTCAGAGGAAGCGAAAAATGGAACATGATGGCTCCCTTTTTCAAGCAGCAGGAATTGGAACATT
 ATTGCAGCAACCGGGTACTGTGCACCTACTATGTCACCTTCTGGAAACGAGTGAAGGATTATATCT
 AGTGAACAGAATGGAACGAGCAAAAGACTATTATTTAATACCTCCGATTTAGCATGCAGACTGCTGG
 GGCAGTCAATGGATGAGAGTGGATTACACAGCTGACCAGTACGATTGTGAAGTTAATGCTCCCATACA
 AGGCAGCAGAAACCTACTGCAGGGTGAAGAATTACTCAGAGCTTTGGATCAAGTTAACTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja1651_b12.zip

Restriction Sites: Sgfl-Mlul

ACCN: NM_010431

Insert Size: 2511 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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: [BC026139](#), [AAH26139](#)

RefSeq Size: 4775 bp

RefSeq ORF: 2511 bp

Locus ID: 15251

UniProt ID: [Q61221](#)

Cytogenetics: 12 31.99 cM

Gene Summary: This gene encodes the alpha subunit which, along with the beta subunit, forms a heterodimeric transcription factor that regulates the cellular and developmental response to reduced oxygen tension. The transcription factor has been shown to regulate genes involved in several biological processes, including erythropoiesis and angiogenesis which aid in increased delivery of oxygen to hypoxic regions. The transcription factor also plays a role in the induction of genes involved in cell proliferation and survival, energy metabolism, apoptosis, and glucose and iron metabolism. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2015]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 5' coding region, compared to variant 1. The encoded isoform (2) is shorter than isoform 1.