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Product datasheet for SC119189

HIF-1 alpha (HIF1A) (NM_001530) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HIF-1 alpha (HIF1A) (NM_001530) Human Untagged Clone
Tag:	Tag Free
Symbol:	HIF1A
Synonyms:	bHLHe78; HIF-1-alpha; HIF-1A; HIF-1alpha; HIF1; HIF1-ALPHA; MOP1; PASD8
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None

Fully Sequenced ORF:

>OriGene sequence for NM_001530 edited
GAATTCGGCACGAGGCCTCTTCGTCGCTTCGGCCAGTGTGTCGGGCTGGGCCCTGACAAG
CCACCTGAGGAGAGGCTCGGAGCCGGGCCCGGACCCCGGCGATTGCCGCCCGCTTCTCTC
TAGTCTCACGAGGGGTTTCCCGCCTCGCACCCCCACCTCTGGACTTGCCTTTCCTTCTCT
TCTCCGCGTGTGGAGGGAGCCAGCGCTTAGGCCGGAGCGAGCCTGGGGGCCGCCCGCCGT
GAAGACATCGCGGGGACCGATTCACCATGGAGGGCGCCGGCGGCGCGAACGACAAGAAAA
AGATAAGTTCTGAACGTCGAAAAGAAAAGTCTCGAGATGCAGCCAGATCTCGGCGAAGTA
AAGAATCTGAAGTTTTTTATGAGCTTGCTCATCAGTTGCCACTTCCACATAATGTGAGTT
CGCATCTTGATAAGGCCTCTGTGATGAGGCTTACCATCAGCTATTTGCGTGTGAGGAAAC
TTCTGGATGCTGGTGATTTGGATATTGAAGATGACATGAAAGCACAGATGAATTGCTTTT
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ATGGCCTTGTGAAAAAGGGTAAAGAACAAAACACACAGCGAAGCTTTTTTCTCAGAATGA
AGTGTACCCTAACTAGCCGAGGAAGAACTATGAACATAAAGTCTGCAACATGGAAGGTAT
TGCACTGCACAGGCCACATTCACGTATATGATACCAACAGTAACCAACCTCAGTGTGGGT
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TTTCTTATTGTGATGAAAGAATTACCGAATTGATGGGATATGAGCCAGAAGAACTTTTAG
GCCGCTCAATTTATGAATATTATCATGCTTTGGACTCTGATCATCTGACCAAAACTCATC
ATGATATGTTTACTAAAGGACAAGTCACCACAGGACAGTACAGGATGCTTGCCAAAAGAG
GTGGATATGTCTGGGTTGAAACTCAAGCAACTGTCATATATAACACCAAGAATTCTCAAC
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ATTTTGGCAGCAACGACACAGAAACTGATGACCAGCAACTTGAGGAAGTACCATTATATA
ATGATGTAATGCTCCCCTCACCCAACGAAAAATTACAGAATATAAATTTGGCAATGTCTC

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CATTACCCACCGCTGAAACGCCAAAGCCACTTCGAAGTAGTGCTGACCCTGCACTCAATC
AAGAAGTTGCATTAAAATTAGAACCAAATCCAGAGTCACTGGAACTTTCTTTTACCATGC
CCCAGATTCAGGATCAGACACCTAGTCCTTCCGATGGAAGCACTAGACAAAGTTCACCTG
AGCCTAATAGTCCCAGTGAATATTGTTTTTATGTGGATAGTGATATGGTCAATGAATTCA
AGTTGGAATTGGTAGAAAAACTTTTTGCTGAAGACACAGAAGCAAAGAACCCATTTTCTA
CTCAGGACACAGATTTAGACTTGGAGATGTTAGCTCCCTATATCCCAATGGATGATGACT
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GCGCAAGTCCTCAAAGCACAGTTACAGTATTCCAGCAGACTCAAATACAAGAACCTACTG
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CTGTCGCTTTGAGTCAAAGAACTACAGTTCCTGAGGAAGAACTAAATCCAAAGATACTAG
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ACATCTAATTTTAGAAGCCTGGCTACAATACTGCACAAACTTGGTTAGTTCAATTTTTGA
TCCCCTTTCTACTTAATTTACATTAATGCTCTTTTTTAGTATGTTCTTTAATGCTGGATC
ACAGACAGCTCATTTTCTCAGTTTTTTGGTATTTAAACCATTGCATTGCAGTAGCATCAT
TTXXXXXXXXXXXXCTCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001530 unedited
AGTATTTTGTAATACGACTCACTTATAGGGCGGCCGCGAATCGGCACGAGGCCTCTTCGT
CGCTTCGGCCAGTGTGTCGGGCTGGGCCCTGACAAGCCACCTGAGGAGAGGCTCGGAGCC
GGGCCCGGACCCCGGCGATTGCCGCCCGCTTCTCTCTAGTCTCACGAGGGGTTTCCCGCC
TCGCACCCCCACCTCTGGACTTGCCTTTCCTTCTCTTCTCCGCGTGTGGAGGGAGCCAGC
GCTTAGGCCGGAGCGAGCCTGGGGGCCGCCCGCCGTGAAGACATCGCGGGGACCGATTCA
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GACCATGAGGAAATGAGAGAAATGCTTACACACAGAAATGGCCTTGTGAAAAAGGGTANA
GAACANAACACACAGCGAAGCTTTNTTCTCAGAATGAAGTGTACCCTAACTAGCCCGAGG
AGAACTATGAACATAAAGTCTGCACCTTGGAAGGTATTGCACTGACAGGCCACATTCACG
TATATGATACCACAGTACCACCTCCATGTGGGGTATAAGAACCACTAGACCGGCTGGGGC
GCTGGATT

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_001530 unedited
CGCGGCCCGCATTCTAANATCGAGTTTTTTTTTTTTTTTTTTTTTTTCCTGGTTTTAAA
AAAGTTTATTTGATGGAACAAAACAATACAGTTAGTGTTAGATCCAACCACAAAGAGCAA
AAGGAATGAAAAATTTGTACAATGTACATAGAAAAAAACAAGATATTTACTGTGACAACT
ATATATTCCTAAAATAATGCTTCTAAATTTTTTCAATTATTGAAATCTACATGGGGAAAA
GGATGTTAATAGCGACAAAGTGCATAAAATCAAACATTGTATTTTGAGCAAATTAACATA
CTAGGCAATTTTGCTAAAAATGCATGATTTTTTTTTTCTTGTTTACAGCCTGCTCAAAAT
ATCTTTATACCAACAGGGTAGGCACAACATTTAGGTTTAATATCAGTTACACAATATTAG
CATAAACTTTCACAACTACATAGGGTATTGCCCTCTTTTGACCTGGCAAAGTGACTATAC
AAACATTATATGATTCCTCTGAATTGACAATTTCATCCAAATAAATGCCACATACCTTGT
ACATATATGCATATCTTCCTATATTATGCAAATGGCTTTACTCTTTAAAAATTAACCATG
CATGATACAACAATCATTATCCTCCGATTAACACTGTGCTGCGGCAGCGTCAACACTCGT
GCTGGCCCAAGAAAAACTTTCGAGCTAAAAACTGTTCTATCAACCCATAATATGTCTCAT
GAGCCACTGTTGGTCTTCTCTAATAAAAACTCTTGTGCAATGGGGGCTACCACACCCTGT
TGGCAAACGCCCTTATCTACGCACAAGGGGAAAAAAAGGGGGAAAAATTGCCAACGGCCT
TTATTTTTATCAAAGTATTGGCCTATTAAAAAATATTTGGACTTTTCTAAAATATTCGAA
AAGGATAACCTCCCTTCCAAAAAAATAAAAAGGGGCAT
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Restriction Sites: NotI-NotI

ACCN: NM_001530

Insert Size: 4000 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: NM_001530.2, NP_001521.1

RefSeq Size: 3958 bp

RefSeq ORF:	2481 bp
Locus ID:	3091
UniProt ID:	Q16665
Cytogenetics:	14q23.2
Domains:	PAS, HLH, PAC
Protein Families:	Transcription Factors
Protein Pathways:	mTOR signaling pathway, Pathways in cancer, Renal cell carcinoma
Gene Summary:	This gene encodes the alpha subunit of transcription factor hypoxia-inducible factor-1 (HIF-1), which is a heterodimer composed of an alpha and a beta subunit. HIF-1 functions as a master regulator of cellular and systemic homeostatic response to hypoxia by activating transcription of many genes, including those involved in energy metabolism, angiogenesis, apoptosis, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. HIF-1 thus plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jul 2011] Transcript Variant: This variant (1) represents the predominant transcript, and encodes isoform 1.