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Product datasheet for MC207840

Egln1 (NM_053207) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Egln1 (NM_053207) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Egln1
Synonyms:	AI503754; C1orf12; Hif-p4h-2; HIF-PH2; HPH-2; ORF13; Phd2; SM-20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC207840 representing NM_053207 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGTTGCTTGTTACCCAGGCAACGGAACAGGCTATGTCCGTCACGTTGATAACCCAAATGGAGATGGAA GATGCGTGACATGTATATATTATCTAAATAAAGACTGGGACGCCAAGGTAAGTGGAGGTATTCTTCGAAT TTTTCCAGAAGGCAAAGCCCAGTTTGCTGACATTGAACCCAAATTTGATAGACTGCTGTTTTTCTGGTCT GACCGGCGTAACCCTCATGAAGTACAGCCAGCATACGCCACAAGGTACGCAATAACTGTTTGGTATTTTG ATGCAGATGAGCGAGCGAGAGCTAAAGTAAAATATCTAACAGGTGAGAAAGGTGTGAGGGTTGAACTCAA GCCCAATTCAGTCAGCAAAGACGTCTAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Chromatograms:	https://cdn.origene.com/chromatograms/ja2264_e11.zip
Restriction Sites:	SgfI-MluI
ACCN:	NM_053207
Insert Size:	378 bp

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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_053207.2, NP_444437.2

RefSeq Size: 3524 bp

RefSeq ORF: 1203 bp

Locus ID: 112405

UniProt ID: Q91YE3

Cytogenetics: 8 E2

Gene Summary: Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins. Hydroxylates a specific proline found in each of the oxygen-dependent degradation (ODD) domains (N-terminal, NODD, and C-terminal, CODD) of HIF1A. Also hydroxylates HIF2A. Has a preference for the CODD site for both HIF1A and HIF1B. Hydroxylated HIFs are then targeted for proteasomal degradation via the von Hippel-Lindau ubiquitination complex. Under hypoxic conditions, the hydroxylation reaction is attenuated allowing HIFs to escape degradation resulting in their translocation to the nucleus, heterodimerization with HIF1B, and increased expression of hypoxy-inducible genes. EGLN1 is the most important isozyme under normoxia and, through regulating the stability of HIF1, involved in various hypoxia-influenced processes such as angiogenesis in retinal and cardiac functionality. Target proteins are preferentially recognized via a LXXLAP motif.[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).