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Product datasheet for MC201719

Egln2 (NM_053208) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Egln2 (NM_053208) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Egln2
Synonyms:	0610011A13Rik; C85656; Hif-p4h-1; Ier4; Phd1; SM-20
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

Fully Sequenced ORF:

>BC023299 sequence for NM_053208
AGCGCAGGGCGGCTGGCACAAACGGCGGCGCCGAGGCCGGAGGAAAAAGCTCGCCACCCCCATCAGTCCC
TTCTCAAGCTCCTAGAGACAACTGTGGACTTGGGGACCAGCGAGCACCCCCAGAGCACTAGAGGAGCCCC
TGCTGCCTGCCCTGCCTCACCCTGCCCCACACGAGGCCCAGCGGCCCCGGGCTGCATCAAGTGGAGGAGG
AGGAGGCGGAGGAGGGTGGCACCATGGGCCCGGGCCGTGCCCTCCATGCCCGGGGGATGAAGACACTGCT
GCCATGGACAGCCCGTGCCAGCCGCAGGCCCTGAATCAAGCTCTCCCTCAGTTGCCAGGGTCTGTGTCAG
AGTCCTTGGAGTCTAGCCGAGCCAGAATGGGGGTGGAGAGTTACCTGCCCTGCCCTCTGCTCCCGGCCTA
TCACCGTCCAGGAGCATCTGGGGAGGCCTCGGCTGGCAATGGGACCCCCAGAACCACAGCCACTGCTACT
ACGACCACTGCCAGTCCCCTGCGGGAGGGCTTTGGTGGGCAGGATGGTGGTGAGCTTTGGCCACTGCAGA
GTGAAGGTGCTGCTGCGTTGGTCACCAAGGAGTGCCAGCGACTGGCGGCCCAGGGTGCCCGGCCTGAGGC
CCCCAAACGGAAGTGGGCCAAGGATGGTGGGGATGCCCCTTCACCCAGCAAGCGACCGTGGGCCAGGCAA
GAGAACCAGGAGGCCAAGGGGGAAAGTGGTATGGGCTGTGACAGCGGTGCCAGCAACAGCAGCAGCAGCA
GCAGCAACACTACCAGTAGCAGTGGCGAGGCAAGTGCTAGGCTGAGGGAGGAAGTCCAGCCCTCTGCACC
TGAGCGCCTGGCCCTGGACTATATTGTGCCTTGCATGCGGTACTATGGTATCTGTGTCAAGGACAACTTC
TTGGGGGCAGTACTGGGTGGCCGTGTGCTGGCTGAGGTGGAAGCCCTGAAGTGGGGCGGGCGTCTTCGTG
ATGGGCAACTAGTGAGCCAGCGGGCGATCCCACCGCGCAGCATTCGTGGGGACCAGATTGCCTGGGTAGA
AGGTCACGAGCCAGGCTGCCGGAGCATTGGTGCCCTCATGGCTCACGTGGACGCAGTAATCCGCCACTGT
GCAGGGCGGCTGGGCAACTACGTCATCAATGGGCGCACCAAGGCCATGGTGGCGTGTTATCCAGGCAATG
GGCTCGGGTACGTGAGGCATGTTGACAATCCCCACGGCGATGGGCGCTGCATCACCTGTATCTATTACCT
GAATCAGAACTGGGATGTTAAGGTGCATGGCGGCCTGCTGCAGATCTTCCCCGAGGGTCGGCCAGTGGTA
GCCAACATCGAGCCACTCTTTGACCGGTTGCTCATTTTCTGGTCTGACCGACGGAACCCACATGAGGTGA
AGCCAGCCTATGCCACCAGGTACGCCATCACTGTCTGGTATTTTGATGCCAAGGAACGGGCAGCAGCCAG
AGACAAGTATCAGCTAGCATCGGGACAGAAAGGTGTTCAAGTACCAGTATCACAGCCAACTACACCTACC
TAATGGCCAGCCCCAGAGCTGCGTGGACCAGCAGCAGCTCCTGCCTCAGTGCCCGCTCCTTTCCTGCCAC
TGCTGCTGCTTCTGGCTTGCCTCTGTACTGTGTGGTGTGGAGGGCACTAAGTATCACTGAGGAGCAACAA
GGAGAGACCTCTGCTGCCCCGTGAGCGAGCGGTGCTGGGTTTTGACCTGGGCAGTGGCCAGTGTGGCTGG
CGGTCATGACTGGTGGCTGTGTCTGGTCCGTTGAGTGTAGAGCTGAGAAGAGGCAGGATTTGGGGTTGAG
GTGAGTCATGGCCTCTTGCTGGAAAGGTGTGTTGGGGTGTGGGTGTCATCTCACCCTCGTCCCCACTCCT
CCGGCCTGGAATGTGAAGTGACTCCCCAGCCCCTTTGGCTGTGGCAGTGTATGGACTGGGCTGCCACTGT
CTGGGCAGAGTAGGGTGCCATGACGAGCATGGGTATGGAGGTTCTGCCAGCCAAGAAATAAAAGTTTACC
TCAGAGCTGCAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_053208

Insert Size: 1260 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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:	BC023299, AAH23299
RefSeq Size:	2055 bp
RefSeq ORF:	1260 bp
Locus ID:	112406
UniProt ID:	Q91YE2
Cytogenetics:	7 15.83 cM
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 HIF2A. 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. EGLN2 is involved in regulating hypoxia tolerance and apoptosis in cardiac and skeletal muscle. Also regulates susceptibility to normoxic oxidative neuronal death. Links oxygen sensing to cell cycle and primary cilia formation by hydroxylating the critical centrosome component CEP192 which promotes its ubiquitination and subsequent proteasomal degradation. Hydroxylates IKBKB, mediating NF-kappaB activation in hypoxic conditions. Target proteins are preferentially recognized via a LXXLAP motif.[UniProtKB/Swiss-Prot Function]