

Product datasheet for **MR211029**

Epas1 (NM_010137) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epas1 (NM_010137) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Epas1
Synonyms:	bHLHe73; HIF-2alpha; HIF2A; HLF; HRF; MOP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR211029 representing NM_010137
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACAGCTGACAAGGAGAAAAAAGGAGCAGCTCAGAGCTGAGGAAGGAGAAATCCCGTATGCCGCGA
 GGTGCCGCGCAGCAAGGAGACGGAGGCTTCTATGAGTTGGCTCATGAGTTGCCCTGCCTCACAGTGT
 GAGCTCCACCTGGACAAAGCCTCCATCATGCGCCTGGCCATCAGCTTCCTTCGGACACATAAGCTCCTG
 TCCTCAGTCTGCTCTGAAAATGAATCTGAAGCTGAGGCCGACCAGCAAATGGATAACTTGTACCTGAAAAG
 CCTTGGAGGGTTTCATTGCTGTGGTGACCAAGACGGTGACATGATCTTTCTGTGCGAAAACATCAGCAA
 GTTCATGGGACTTACTCAGGTAGAATAACAGGACACAGCATCTTTGACTTCACTCATCCTTGCACCAT
 GAGGAGATCCGTGAGAACCTGACTCTCAAAAACGGCTCTGGTTTTGGGAAGAAGACAAAGACGTGTCCA
 CCGAGCGTGACTTCTTCATGAGGATGAAGTGCACGGTACCAACAGAGGCCGGACTGTCAACCTCAAGTC
 GGCACCTGGAAGTCTGCACCTGCACCGGCAAGTGAGAGTCTACAACAACGCCCCCTCACAGTAGC
 CTCTGTGGCTCCAAGGAGCCCTGCTGTCTGCCTTATCATCATGTGTGAGCCAATCCAGACCCATCCC
 ACATGGACATCCCTGGACAGCAAGACTTTCTGAGCCGCCACAGCATGGACATGAAGTTCACCTACTG
 TGACGACAGAATCTTGAAGTATTGGTTACCACCCGAGGAGCTACTTGGACGCTCTGCCTATGAGTTC
 TACCATGCCCTGGATTCCGAGAACATGACCAAAAGTACCAGAATTTGTGCACCAAGGGGACGGTGGTAT
 CTGGCCAGTACCGGATGCTAGCCAAACAGGAGGATATGTGTGGCTGGAGACCCAGGGGACGGTCATCTA
 CAACCCCGCAACCTGCAGCCTCAGTGTATCATGTGTGCAACTATGTGCTGAGTGAGATCGAGAAGAAC
 GACGTGGTGTCTCCATGGACCAGACCGAATCCCTGTTCAAGCCACACCTGATGGCCATGAACAGCATCT
 TTGACAGCAGTGACGATGTGGCTGAACCTGAGAAGAGCAACTACCTGTTCAACAACTGAAGGAGGCC
 CGAGGAAGTGGCCAGTTGGCCCCACCCAGGAGATGCCATTATTTCTCTCGATTCGGAAGCCAGAAC
 TTCGATGAACCCTCAGCCTATGGCAAGGCCATCCTTCCCCGGGCCAGCCATGGGTCTCGGGGCTGAGGA
 GCCACAGTGCCAGAGCGAGTCCGGGAGCCTGCCAGCCTTCACTGTGCCAGGCAGACACCCAGGGAA
 CACTACACCCAGTGCTTCAAGCAGCAGTGTGCTCCAGCCAGCAGCCTGAGGACTACTATTATCC
 TTGGAGAATCCCTTGAAGATCGAAGTATTGAGAAGCTTTTCGCCATGGACACGGAGCCGAGGGACCCGG
 GCAGTACCCAGACGGACTTCACTGAAGTGGATTGGAGACCTGGCACCTACATCCCTATGGACGGCGA
 GGACTTCCAGCTGAGCCCATCTGCCAGAGGAGCCGCTCATGCCAGAGAGCCCCAGCCACCCCCAG
 CACTGCTTCACTACCATGACCAGCATCTCCAGCCGCTCACCCGGGGGCCACCCAGGCCCTTCTTCC
 TCGATAAGTACCCGACGAGTTGGAAAGCAGGAAGACAGAGTCTGAGCACTGGCCCATGTCTCCATCTT
 CTTTGATGCTGGGAGCAAAGGTCCCTGTCTCCATGCTGTGGCCAGGCCAGCACCCCTCTCTCTTATG
 GGAGGCAGATCCAACACGCAGTGGCCCCGGATCCACCATTACATTTTCGCCCTACTAAGTGGCCTGTGG
 GTGATCAGAGTGTGAATCCCTGGGAGCCCTGCCGGTGGGGTCACTCGCAGTTGGAACCTCCGAGCGCCCC
 GCCTCATGTCTCCATGTTCAAGATGAGGTCTGCAAAGGACTTCGGGGCCCGAGGTCCATACATGATGAGC
 CCAGCCATGATCGCCCTGTCCAACAAGCTGAAGCTAAAGCGGCAGCTGGAGTATGAGGAGCAAGCCTTCC
 AAGACACAAGCGGGGGGACCCCTCAGGCACCAGCAGTTCACACTTGTGTGAAACGTATGAAGAGCCT
 CATGGGCGGGACCTGTCTTTGATGCCTGACAAGACCATCAGTGCGAACATGGCCCCGATGAATTCACC
 CAAAAATCTATGAGAGGCTGGGCCAGCCACTGAGACACCTGCCACCTCCCCAGCCACCATCTACCAGGA
 GCTCAGGGGAGAACGCCAAGACTGGGTTCCCGCCACAGTGTATGCCTCCAGTTCAGGACTACGGTCC
 TCCAGGAGCTCAAAGGTGTGAGCGTGGCCAGTGCAGTGTGGGCCATCGTTTCGAGCCTTACCTGTTG
 CCGGAAGTACCAGATATGACTGTGAGGTGAACGTGCCCGTGCCTGGAAGCTCCACACTCTGCAGGGGA
 GAGACCTTCTCAGAGCTCTGGACCAGGCCACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211029 representing NM_010137
 Red=Cloning site Green=Tags(s)

MTADKEKKRSSSELRKEKSRDAARCRRSKETEVFYELAHPLPHSVSSHLDKASIMRLAISFLRTHKLL
 SSVCSENESEAEADQQMDNLYLKALEGFI AVVTQDGMIFLSENI SKFMGLTQVELTGHSIFDFTHPCDH
 EEIRENLTLKNGSGFGKKSKDVSTERDF FMRMKCTVTNRGRTVNLKSATWKVHLHCTGQVRVYNNCPHSS
 LCGSKEPLL SCL IIMCEPIQHPSHMDIPLDSKTF LSRHSMDMKFTYCDDRILELIGYHPEELLGRSAYEF
 YHALDSENMTKSHQNLCTKGQVVSQYRMLAKHGGYVWLETQGTVIYNPRNLQPQCIMCVNYVLSIEKN
 DVVFSMDQTESL FKP HLMAMNSIFDSSDDVAVTEKSNYLF TKLKEEPEELAQ LAPTPGD AII SLDFGSQN
 FDEPSAYGKAILPPGQPWVSGLRSHAQSESGSLPAFTVPQADTPGNTTPSASSSSSCSTPSSPEDYSS
 LENPLKIEVIEKLFAMDTEPRDPGSTQTD F SELDLETLAPYIPMDGEDFQLSPICPEEPLMPESPQTPQ
 HCFSTMTSIFQPLTPGATHGPF FLDKYPQQLSRKTESEHWPMSSIFFDAGSKGSLSPCCGQASTPLSSM
 GGRSNTQWPPDPPLHFGPTKWPVGDQSAESL GALPVGSSQLEPPSAPPHVSMFKMRSKDFGARGPYMMS
 PAMIALSNKLLKRQLEYEEQAFQDTSGGDPPGTSSSHLMWKRMSLMGGTCPLMPDKTISANMAPDEFT
 QKSMRGLGQPLRHLPPPQPPSTRSSGENAKTGFPPQCYASQFQDYGPPGAQKVSQVSGVASRLLGPSFEYLL
 PELTRYDCEVNVVPVPGSSTLLQGRDLLRALDQAT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9032_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

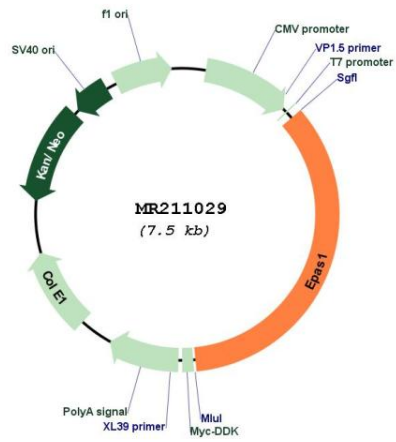
Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:	NM_010137
ORF Size:	2622 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:	<ol style="list-style-type: none">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_010137.3 , NP_034267.3
RefSeq Size:	5352 bp
RefSeq ORF:	2625 bp
Locus ID:	13819
UniProt ID:	P97481
Cytogenetics:	17 E4
MW:	97.2 kDa
Gene Summary:	Transcription factor involved in the induction of oxygen regulated genes. Heterodimerizes with ARNT; heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters (PubMed:26245371). Regulates the vascular endothelial growth factor (VEGF) expression and seems to be implicated in the development of blood vessels and the tubular system of lung. May also play a role in the formation of the endothelium that gives rise to the blood brain barrier. Potent activator of the Tie-2 tyrosine kinase expression. Activation requires recruitment of transcriptional coactivators such as CREBBP and probably EP300. Interaction with redox regulatory protein APEX seems to activate CTAD (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211029