

Product datasheet for **RC208604**

HIF 2 alpha (EPAS1) (NM_001430) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HIF 2 alpha (EPAS1) (NM_001430) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HIF 2 alpha
Synonyms:	bHLHe73; ECYT4; HIF2A; HLF; MOP2; PASD2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC208604 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACAGCTGACAAGGAGAAGAAAAGGAGTAGCTCGGAGAGGAGGAAGGAGAAGTCCCGGATGCTGCGC
 GGTGCCGCGGAGCAAGGAGACGGAGGTGTTCTATGAGCTGGCCATGAGCTGCCTCGCCACAGTGT
 GAGCTCCCATCTGGACAAGGCCTCCATCATGCGACTGGCAATCAGCTTCCTGCGAACACACAAGCTCCTC
 TCCTCAGTTTGTCTGAAAACGAGTCCGAAGCCGAAGCTGACCAGCAGATGGACAACCTGTACCTGAAAG
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 GTTCATGGGACTTACACAGGTGGAGCTAACAGGACATAGTATCTTTGACTTCACTCATCCCTGCGACCAT
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 TGATGACAGAATCACAGAACTGATTGGTTACCACCCTGAGGAGCTGCTTGGCCGCTCAGCCTATGAATTC
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 GACGTGGTGTCTCCATGGACCAGACTGAATCCCTGTTCAAGCCCCACCTGATGGCCATGAACAGCATCT
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 CGAGGAGCTGGCCAGCTGGCTCCACCCAGGAGACGCCATCATCTCTGTGATTCGGGAATCAGAAC
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 CTCTTTGATGCCGGAAGCAAAGCATCCCTGCCACCGTGTGTGGCCAGGCCAGCACCCCTCTCTCTTCC
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 CAAGGTGTGAGCATGGCAAGCCGGCTGCTCGGGCCCTCATTTGAGTCTACCTGCTGCCGAACTGACC
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 GAGCCCTGGACCAGGCCACC

ACGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208604 protein sequence
 Red=Cloning site Green=Tags(s)

MTADKEKKRSSSERRKEKSRDAARCRRSKETEVFYELAHLELPLPHSVSSHLDKASIMRLAISFLRTHKLL
 SSVCSENESEAEADQQMDNLYLKALEGFI AVVTQDGMIFLSENI SKFMGLTQVELTGHSIFDFTHPCDH
 EEIRENLSLKNKSGFGKKSKDMSTERDF FMRMKCTVTNRGRTVNLKSATWKVLHCTGQVKVYNNCPPHNS
 LCGYKEPLL SCL IIMCEPIQHPSHMDIPLDSKTF LSRHSMDMKFTYCDDRITELIGYHPEELLGRSAYEF
 YHALDSENMTKSHQNLCTKGQVVSQGYRMLAKHGGYVWLETQGTVIYNPRNLQPQCIMCVNYVLSEIEKN
 DVVFSMDQTESL FKP HLMAMNSIFDSSGKGAVSEKSNFLFTKLKEEPEELAQ LAPTPGD AII SLDFGNQN
 FEESAYGKAILPPSQPWATELRSHSTQSEAGSLPAFTVPQAAAPGSTTPSATSSSSCSTPNSPEDYYT
 SLDNDLKIEVIEKLFAMDTEAKDQCSTQTFNELDLETLAPYIPMDGEDFQLSPICPEERLLAENPQSTP
 QHCF SAMTNI FQPLAPVAPHSPFL LDKFQQQLESKKTPEHRPMSSIFFDAGSKASLPPCCGQASTPLSS
 MGGRSNTQWPPDPPLHF GPTKWAVGDQRTEFLGAAPL GPPVSPPHVSTFKTRSAKGF GARGPDV LSPAMV
 ALSNKLKLRQLEYEEQAFQDL SGGDPPGGSTSHLMWKR MKNLRGGSCPLMPDKPL SANVPNDKFTQNP
 RGLGHPLRHLPLQPPSAISPGENSKSRFPQCYATQYQDYSLSAHKVS GMASRLLGPSFESYLLPELT
 RYDCEVNPVVLGSSTLLQGGDLLRALDQAT

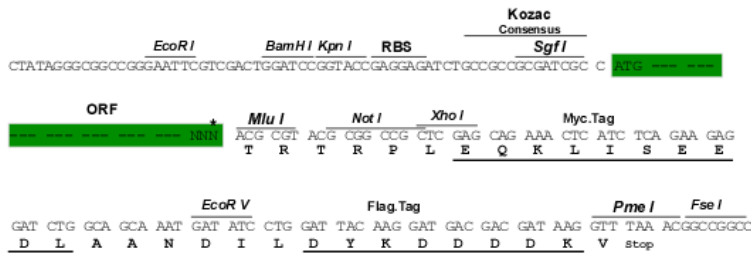
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6156_b06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

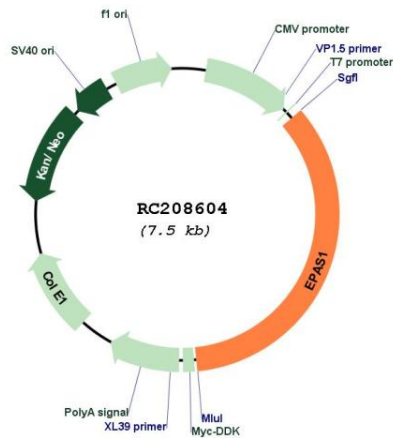
Cloning sites used for ORF Shuttling:



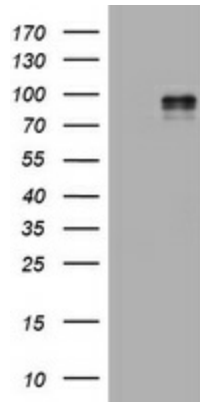
* The last codon before the Stop codon of the ORF

ACCN:	NM_001430
ORF Size:	2610 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_001430.5
RefSeq Size:	5184 bp
RefSeq ORF:	2613 bp
Locus ID:	2034
UniProt ID:	Q99814
Cytogenetics:	2p21
Domains:	PAS, HLH, PAC
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Pathways in cancer, Renal cell carcinoma
MW:	96.5 kDa
Gene Summary:	This gene encodes a transcription factor involved in the induction of genes regulated by oxygen, which is induced as oxygen levels fall. The encoded protein contains a basic-helix-loop-helix domain protein dimerization domain as well as a domain found in proteins in signal transduction pathways which respond to oxygen levels. Mutations in this gene are associated with erythrocytosis familial type 4. [provided by RefSeq, Nov 2009]

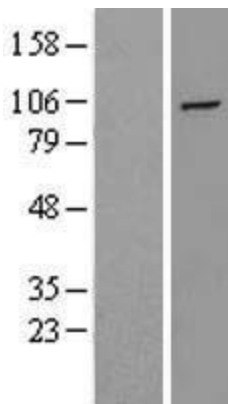
Product images:



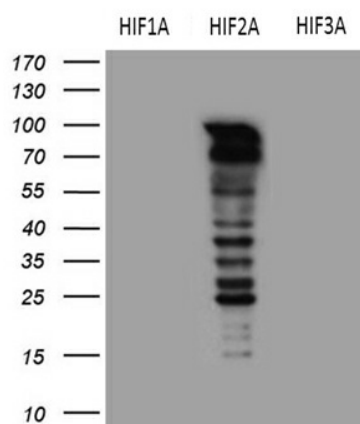
Circular map for RC208604



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY EPAS1 (Cat# RC208604, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-EPAS1 (Cat# [TA801746]). Positive lysates [LY400555] (100ug) and [LC400555] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400555]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208604 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-HIF1A (Cat# [RC202461]), pCMV6-EPAS1 (Cat# RC208604) and pCMV6-HIF3A (Cat# [RC210255]) (1:2000).