

Product datasheet for **RC216724**

HIF1 beta (ARNT) (NM_001668) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HIF1 beta (ARNT) (NM_001668) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HIF1 beta
Synonyms:	bHLHe2; HIF-1-beta; HIF-1beta; HIF1-beta; HIF1B; HIF1BETA; TANGO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC216724 representing NM_001668
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCGACTACTGCCAACCCCGAAATGACATCAGATGTACCATCACTGGGTCCAGCCATTGCCTCTG
 GAAACTCTGGACCTGGAATTC AAGGTGGAGGAGCCATTGTCCAGAGGGCTATTAAGCGGCGACCAGGGCT
 GGATTTTGATGATGATGGAGAAGGGAACAGTAAATTTTTGAGGTGTGATGATGATCAGATGTCTAACGAT
 AAGGAGCGGTTTGCCAGGTGGATGATGAGCAGAGCTCTGCGGATAAAGAGAGACTTGCCAGGAAAAATC
 ACAGTGAAATTGAACGGCGGCGACGGAACAAGATGACAGCCTACATCACAGAAGTGTGATATGGTACC
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 CAAGTGCTGTCTGTATGTTCCGGTTCGGTCTAAGAACCAAGAATGGCTCTGGATGAGAACCAGCTCCT
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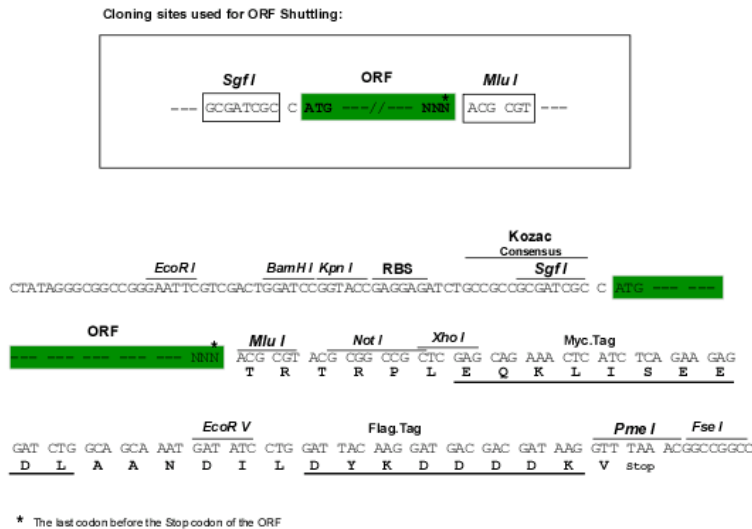
Protein Sequence: >RC216724 representing NM_001668
Red=Cloning site Green=Tags(s)

MAATTANPEMTSDVPSLGPAAISGNSGPGIQGGGAI VQRAIKRRPGLDFDDDGEGNSKFLRCDDDDQMSND
KERFARSDDEQSSADKERLARENHSEIERRRRNKMTAYITELSDMVPTCSALARKPKL TILRMAVSHMK
SLRGTGNTSTDGSYKPSFLTDQELKHLILEAADGFLFIVSCETGRVVYVSDSVTPVLNQPQSEWFGSTLY
DQVHPDDVDKLRQLSTENAL TGRILD LKTGTVKKEGQSSMRMCMGSRRSFICRMRCGSSSDVPVSVN
RLSFVRNRCRNLGSKDGEPHFVVHCTGYIKAWPPAGVSLPDDDP EAGQGSKFCLVAIGRLQVTSSPN
CTDMSNVCQPTEFISRHNIEGIFTFVDHRCVATVGYQPQELLGKNIVEFCHPEDQQLLRDSFQQVVKLKG
QVLSVMFRFRSKNQEWLWMRTSSFTFQNPYSDEIEYI ICTNTNVKNSSQEPRPTLSNTIQRPLGPTANL
PLEMGSQLAPRQQQQTELD MVPGRDGLASYNHSQVVQPVT TTTGPEHSPLEKSDGLFAQDRDPRFSEI
YHNINADQSKGISSTVPATQQLFSQGNTPPTPRPAENFRNSGLAPPVTIVQPSASAGQMLAQISRHSN
PTQGATPTWPTTRSGFSAQQVATQATAKTRTSQFVGVSFQTPSSFSSMSLPGAPTASPGAAAYPSLTNR
GSNFAPETGQTAGQFQTRTAEGVGVWPQWQGGQPHHRSSSEQHVQPPAQPGQPEVFQEML SMLGDQS
NSYNNEEFPDLTMFPFSE

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6044_h11.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001668

ORF Size: 2367 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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001668.4](#)

RefSeq Size: 4846 bp

RefSeq ORF: 2370 bp

Locus ID: 405

UniProt ID: [P27540](#)

Cytogenetics: 1q21.3

Domains: PAS, HLH, PAC

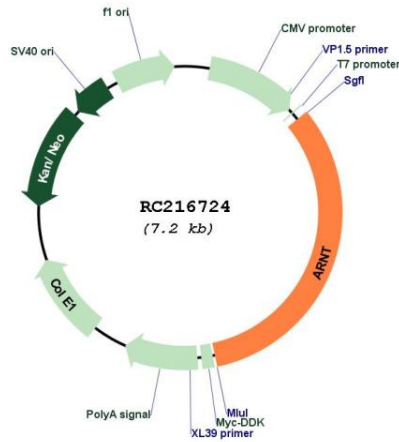
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Pathways in cancer, Renal cell carcinoma

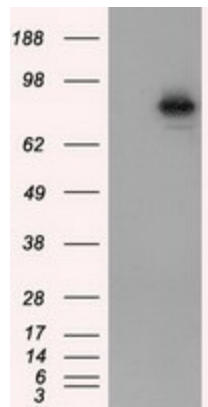
MW: 86.5 kDa

Gene Summary: This gene encodes a protein containing a basic helix-loop-helix domain and two characteristic PAS domains along with a PAC domain. The encoded protein binds to ligand-bound aryl hydrocarbon receptor and aids in the movement of this complex to the nucleus, where it promotes the expression of genes involved in xenobiotic metabolism. This protein is also a co-factor for transcriptional regulation by hypoxia-inducible factor 1. Chromosomal translocation of this locus with the ETV6 (ets variant 6) gene on chromosome 12 have been described in leukemias. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2013]

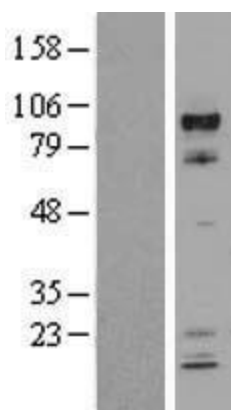
Product images:



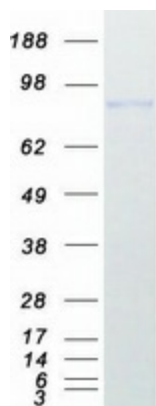
Circular map for RC216724



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARNT (Cat# RC216724, 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-ARNT (Cat# [TA501147]). Positive lysates [LY400636] (100ug) and [LC400636] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400636]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216724 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARNT protein (Cat# [TP316724]). The protein was produced from HEK293T cells transfected with ARNT cDNA clone (Cat# RC216724) using MegaTran 2.0 (Cat# [TT210002]).