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Product datasheet for RC217284

HIF1 beta (ARNT) (NM_178426) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HIF1 beta (ARNT) (NM_178426) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HIF1 beta
Synonyms:	aryl hydrocarbon receptor nuclear translocator; bHLHe2; dioxin receptor, nuclear translocator; HIF-1beta; HIF1B; HIF1BETA; hypoxia-inducible factor 1, beta subunit; OTTHUMP00000032943; TANGO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217284 representing NM_178426 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCGGCGACTACTGCCAACCCCGAAATGACATCAGATGTACCATCACTGGGTCCAGCCATTGCCTCTG GAAACTCTGGACCTGGAATTCAAGGTGGAGGAGCCATTGTCCAGAGGGCTATTAAGCGGCGACCAGGGCT GGATTTTGATGATGATGGAGAAGGGAACAGTAAATTTTTGAGGTGTGATGATGATCAGATGTCTAACGAT AAGGAGCGGTTTGCCAGGTCGGATGATGAGCAGAGCTCTGCGGATAAAGAGAGACTTGCCAGGGAAAATC ACAGTGAAATTGAACGGCGGCGACGGAACAAGATGACAGCCTACATCACAGAACTGTCAGATATGGTACC CACCTGTAGTGCCCTGGCTCGAAAACCAGACAAGCTAACCATCTTACGCATGGCAGTTTCTCACATGAAG TCCTTGCGGGGAACTGGCAACACATCCACTGATGGCTCCTATAAGCCGTCTTTCCTCACTGATCAGGAAC TGAAACATTTGATCTTGGAGGCAGCAGATGGCTTTCTGTTTATTGTCTCATGTGAGACAGGCAGGGTGGT GTATGTGTCTGACTCCGTGACTCCTGTTTTGAACCAGCCACAGTCTGAATGGTTTGGCAGCACACTCTAT GATCAGGTGCACCCAGATGATGTGGATAAACTTCGTGAGCAGCTTTCCACTTCAGAAAATGCCCTGACAG GGCGTATCCTGGATCTAAAGACTGGAACAGTGAAAAAGGAAGGTCAGCAGTCTTCCATGAGAATGTGTAT GGGCTCAAGGAGATCGTTTATTTGCCGAATGAGGTGTGGCAGTAGCTCTGTGGACCCAGTTTCTGTGAAT AGGCTGAGCTTTGTGAGGAACAGATGCAGGAATGGACTTGGCTCTGTAAAGGATGGGGAACCTCACTTCG TGGTGGTCCACTGCACAGGCTACATCAAGGCCTGGCCCCCAGCAGGTGTTTCCCTCCCAGATGATGACCC AGCC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC217284 representing NM_178426
Red=Cloning site Green=Tags(s)

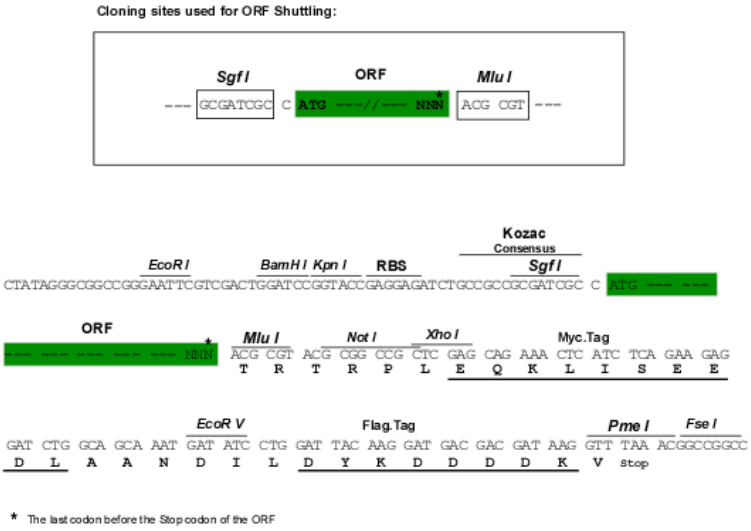
MAATTANPEMTSDVPSLGPAIASGNSGPGIQGGGAIVQRAIKRRPGLDFDDDGEGNSKFLRCDDDQMSND
KERFARSDDEQSSADKERLARENHSEIERRRRNKMTAYITELSDMVPTCSALARKPDKLTILRMAVSHMK
SLRGTGNTSTDGSYKPSFLTDQELKHLILEAADGFLFIVSCETGRVVYVSDSVTPVLNQPQSEWFGSTLY
DQVHPDDVDKLREQLSTSENALTGRILDLKTGTVKKEGQQSSMRMCMGSRRSFICRMRCGSSSVDPVSVN
RLSFVRNRCRNGLGSVKDGEPHFVVVHCTGYIKAWPPAGVSLPDDDPA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8052_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_178426

ORF Size: 984 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.

RefSeq: NM_178426.1, NP_848513.1

RefSeq Size: 3563 bp

RefSeq ORF: 986 bp

Locus ID: 405

Cytogenetics: 1q21.3

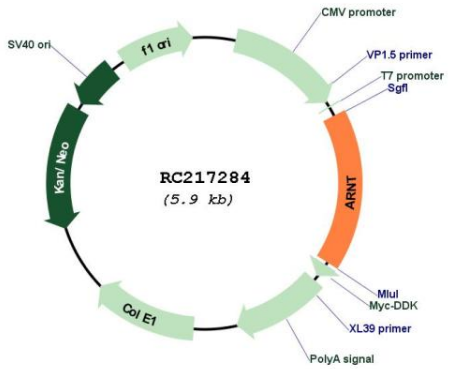
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Pathways in cancer, Renal cell carcinoma

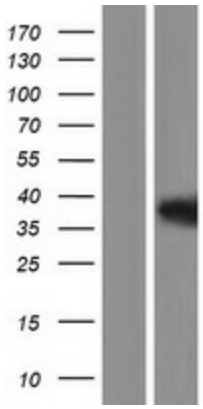
MW: 35.8 kDa

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]

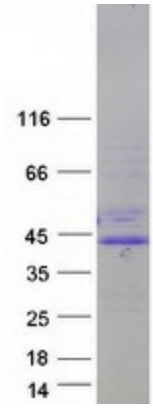
Product images:



Circular map for RC217284



Western blot validation of overexpression lysate (Cat# [LY405950]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217284 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARNT protein (Cat# [TP317284]). The protein was produced from HEK293T cells transfected with ARNT cDNA clone (Cat# RC217284) using MegaTran 2.0 (Cat# [TT210002]).