

Product datasheet for **RG209832**

Aryl hydrocarbon Receptor (AHR) (NM_001621) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aryl hydrocarbon Receptor (AHR) (NM_001621) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AHR
Synonyms:	bHLHe76; RP85
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209832 representing NM_001621
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACAGCAGCAGCGCCAACATCACCTACGCCAGTCGCAAGCGCGGAAGCCGGTGCAGAAAACAGTAA
 AGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTCCAAGCGGCATAGAGACCGACTTAATACAGAGTT
 GGACCGTTTGGCTAGCCTGCTGCCTTCCACACAAGATGTTATTAATAAGTTGGACAAAACCTTCAGTTCTT
 AGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTCTTTGATGTTGCATTAATACTCCCTACTGAAA
 GAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTCAGAGAAGGCCTGAACTTACAAGAAGGAGAATT
 CTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACACTACAGATGCTTTGGTCTTTTATGCTTCTCT
 ACTATAACAAGATTATCTAGGGTTTCAGCAGTCTGATGTCATACATCAGAGTGTATATGAACTTATCCATA
 CCGAAGACCGAGCTGAATTCAGCGTCAGTACACTGGGCATTAATCCTTCTCAGTGTACAGAGTCTGG
 ACAAGGAATTGAAGAAGCCACTGGTCTCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCCTCCA
 GAAAACCTCCTTTAATGGAGAGGTGCTTCATATGTCGTCTAAGGTGCTGCTGGATAATTCATCTGGTT
 TTCTGGCAATGAATTTCCAAGGGAAGTTAAAGTATCTTCATGGACAGAAAAGAAAGGAAAGATGGATC
 AATACTCCACCTCAGTTGGCTTTGTTTGGCATAGCTACTCCACTTCAGCCACCATCCATACTTGAATC
 CGGACCAAAAATTTATCTTTAGAACCAAAACAAAACACTAGACTTCACACCTATTGGTTGTGATGCCAAAG
 GAAGAATTGTTTTAGGATATACTGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGC
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 TTCCGGCTTCTTACAAAAACAACCGATGGACTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAAAATG
 GAAGACCAGATTATATCATTGTAACCTCAGAGACCCTAACAGATGAGGAAGGAACAGAGACTTTACGAAA
 ACGAAAATACGAAGTTGCCTTTTATGTTTACCCTGGAGAAGCTGTGTTGTATGAGGCAACCAACCTTTT
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 CCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGATGCAACAAGATGAGTCTAT
 TTATCTCTATCCTGCTTCAAGTACTTCAAGTACTGCACCTTTTAAAAACAACCTTTTCAACGAATCTATG
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 TTGACCAGCCTCAGGATGTGAACCTATTGCTGGAGGTCACCCAGGGCTCTTTCAAGATAGTAAAAACAG
 TGACTTGTACAGCATAATGAAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAGAATGAAAA
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 ATGTCCAAGATCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCTTGGCTCT
 GAACTCAAGCTGTATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACAAAAGCAAGTA
 GTAGTGGAGCCACAGCAACAGCTGTGTCAGAAGATGAAGCACATGCAAGTTAATGGCATGTTTAAAAATT
 GGAACCTAACAATTCGTGCCTTTCAATTGTCCACAGCAAGACCCACAACAATAAATGTCTTTACAGA
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 ATTTCTGTAAATCAGCCTGTATTACCACAACATTCAAATGTACAGAGCTGGACTACCCTATGGGGAGTT
 TTGAACCATCCCATACCCCACTACTTCTAGTTTAGAAGATTTTGTCACTTGTTTACAACCTCCTGAAAA
 CAAAAGCATGGATTAATCCACAGTCAGCCATAATAACTCCTCAGACATGTTATGCTGGGCGCGTGTCCG
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 GCCAACAGGCATTTTTAAACAAGTTTCAAGATGGAGTTTTAAATGAAACATATCCAGCTGAATTAATAA
 CATAAATAAACAACCTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTGAGAAGCCAGACCTTTTCT
 GATTTGACATCCAGTGGATTCTCTG

ACGGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG209832 representing NM_001621
Red=Cloning site Green=Tags(s)

MNSSSANITYASRKRKRPVQKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLKDLSVL
RLSVSYLRAKSFDFVALKSSPTERNGGQDNCRAANFREGNLQEGEFLLQALNGFVLVVTTDALVFYASS
TIQDYLGFGQSDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQGIEEATGLPQTVCYNPDQIPP
ENSPLMERCFCICRLRCLLDNSSGFLAMNFQGKLYLHGQKKKGGKDGSI LPPQLALFAIATPLQPPSILEI
RTKNFIFRTKHKLDFTPIGCDAKGRIVLGYTEAELCTRGSYQFIHAADMLYCAESHIRMIKTGESGMIV
FRLLTKNNRWTWVQSNARLLYKNGRPDYIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPF
PAIMDPLPLRTKNGTSGKDSATTSTLSKDSLNPSSLLAAMMQQDESIYLYPASSTSSTAPFENFFNESM
NECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAGGHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNEK
FFRNDVSGEVDFRDIDL TDEILTYVQDSLKSPFIPSDYQQQSLALNSSCMVQEHLHLEQQQHHQKQV
VVEPQQQLCQKMKHMVNGMFENWNSNQFVPFNCPQQDPQQYNVFTDLHGISQEFYKSEMDSMPYTQNF
ISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLEDFVTCLQLPENQKHGLNPQSAIITPQTCYAGAVS
MYQCQPEPQHHTHVGMQYNPVLPGQQAFLNKFQNGVNLNETYPAELNNINNTQTTTHLQPLHHPSEARPPF
DLTSSGFL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

ACCN:	NM_001621
ORF Size:	2544 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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_001621.5
RefSeq Size:	5496 bp
RefSeq ORF:	2547 bp
Locus ID:	196
UniProt ID:	P35869
Cytogenetics:	7p21.1
Domains:	PAS, HLH, PAC
Protein Families:	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors

Gene Summary:

The protein encoded by this gene is a ligand-activated helix-loop-helix transcription factor involved in the regulation of biological responses to planar aromatic hydrocarbons. This receptor has been shown to regulate xenobiotic-metabolizing enzymes such as cytochrome P450. Before ligand binding, the encoded protein is sequestered in the cytoplasm; upon ligand binding, this protein moves to the nucleus and stimulates transcription of target genes. [provided by RefSeq, Sep 2015]