

## 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:	Aryl hydrocarbon Receptor
Synonyms:	bHLHe76; RP85
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG209832 representing NM\_001621  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAACAGCAGCAGCGCCAACATCACCTACGCCAGTCGCAAGCGCGGAAGCCGGTGCAGAAAACAGTAA  
 AGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTCCAAGCGGCATAGAGACCGACTTAATACAGAGTT  
 GGACCGTTTGGCTAGCCTGCTGCCTTCCACACAAGATGTTATTAATAAGTTGGACAAACTTTCAGTTCTT  
 AGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTTCTTTGATGTTGCATTAATACTCCCTACTGAAA  
 GAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTCAGAGAAGGCCTGAACTTACAAGAAGGAGAATT  
 CTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACACTACAGATGCTTTGGTCTTTTATGCTTCTCT  
 ACTATAACAAGATTATCTAGGGTTTCAGCAGTCTGATGTCATACATCAGAGTGTATATGAACTTATCCATA  
 CCGAAGACCGAGCTGAATTCAGCGTCAGTACACTGGGCATTAATCCTTCTCAGTGTACAGAGTCTGG  
 ACAAGGAATTGAAGAAGCCACTGGTCTCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCCTCCA  
 GAAACTCTCCTTAATGGAGAGGTGCTTCATATGTCGTCTAAGGTGCTGCTGGATAATTCATCTGGTT  
 TTCTGGCAATGAATTTCCAAGGGAAGTTAAAGTATCTTCATGGACAGAAAAGAAAGGAAAGATGGATC  
 AATACTCCACCTCAGTTGGCTTTGTTTGGCATAGCTACTCCACTTCAGCCACCATCCATACTTGAATC  
 CGGACCAAAAATTTATCTTTAGAACCAAAACAAAAGTACTTACACCTATTGGTTGTGATGCCAAAAG  
 GAAGAATTGTTTTAGGATATACTGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGC  
 AGCTGATATGCTTTATTGTGCCGAGTCCCATATCCGAATGATTAAGACTGGAGAAAGTGGCATGATAGTT  
 TTCCGGCTTCTTACAAAAACAACCGATGGACTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAAAATG  
 GAAGACCAGATTATATCATTGTAACCTCAGAGACCCTAACAGATGAGGAAGGAACAGAGACTTTACGAAA  
 ACGAAAATACGAAGTTGCCTTTTATGTTTACCCTGGAGAAGCTGTGTTGTATGAGGCAACCAACCTTTT  
 CCTGCCATAATGGATCCCTTACCCTAAGGACTAAAAATGGCACTAGTGGAAAAGACTCTGCTACCACAT  
 CCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGATGCAACAAGATGAGTCTAT  
 TTATCTCTATCCTGCTTCAAGTACTTCAAGTACTGCACCTTTTAAAAACAACCTTTTCAACGAATCTATG  
 AATGAATGCAGAAATGGCAAGATAACTGCACCGATGGGAAATGATACTATCCTGAAACATGAGCAAA  
 TTGACCAGCCTCAGGATGTAACCTATTGCTGGAGGTCACCCAGGGCTCTTTCAAGATAGTAAAAACAG  
 TGACTTGTACAGCATAATGAAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAGAATGAAAA  
 TTTTTCAGAAATGATTTTCTGGTGAGGTTGACTTCAGAGACATTGACTTAACGGATGAAATCCTGACGT  
 ATGTCCAAGATCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCTTGGCTCT  
 GAACTCAAGCTGTATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACAAAAGCAAGTA  
 GTAGTGGAGCCACAGCAACAGCTGTGTCAGAAGATGAAGCACATGCAAGTTAATGGCATGTTTAAAAAT  
 GGAACCTAACCAATTCGTGCCTTTCAATTGTCCACAGCAAGACCACAACAATAAATGTCTTTACAGA  
 CTTACATGGGATCAGTCAAGAGTTCCCTTACAAATCTGAAATGGATTCTATGCCTTATACACAGAACTTT  
 ATTTCTGTAAATCAGCCTGTATTACCACAACATTCAAATGTACAGAGCTGGACTACCCTATGGGGAGTT  
 TTGAACCATCCCATACCCACTACTTCTAGTTTAGAAGATTTTGTCACTTGTTTACAACCTCCTGAAAA  
 CAAAAGCATGGATTAATCCACAGTCAGCCATAATAACTCCTCAGACATGTTATGCTGGGCGCGTGTCCG  
 ATGTATCAGTGCCAGCCAGAACCCTCAGCACACCCACGTGGGTGAGATGCAGTACAATCCAGTACTGCCAG  
 GCCAACAGGCATTTTTAAACAAGTTTCAAGATGGAGTTTTAAATGAAACATATCCAGCTGAATTAATAA  
 CATAAATAAACAACCTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTGAGAAGCCAGACCTTTTCT  
 GATTTGACATCCAGTGGATTCTCTG

**ACGGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >RG209832 representing NM\_001621  
 Red=Cloning site Green=Tags(s)

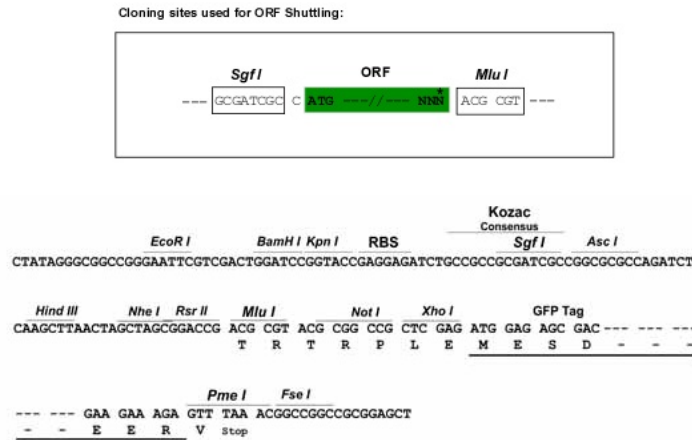
```

MNSSSANITYASRKRKRPVQKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLDKLSVL
RLSVSYLRAKSFDFVALKSSPTERNGGQDNCRAANFREGLNLQEGEFLQALNGFVLVTTDALVFYASS
TIQDYLGFGQSDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQGIEEATGLPQTVCYNPDQIPP
ENSPLMERCFCICRLRCLLDNSSGFLAMNFQGKLYLHGQKKKGGKDGSI LPPQLALFAIATPLQPPSILEI
RTKNFIFRTKHKLDFTPIGCDAGRIVLGYTEAELCTRGSYQFIHAADMLYCAESHIRMIKTGESGMIV
FRLLTKNNRWTWVQSNARLLYKNGRPDYIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPF
PAIMDPLPLRTKNGTSGKDSATTSTLSKDSLNPSSLLAAMMQQDESIYLYPASSTSSTAPFENFFNESM
NECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAGGHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNEK
FFRNDVSGEVDFRDIDL TDEILTYVQDSLKSPFIPSDYQQQSLALNSSCMVQEHLHLEQQQHHQKQV
VVEPQQQLCQKMKHMVNGMFENWNSNQFVPFNCPQQDPQQYNVFTDLHGISQEFYKSEMDSMPYTQNF
ISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLEDFVTCLQLPENQKHGLNPQSAIITPQTCYAGAVS
MYQCQPEPQHHTHVGMQYNPVLPGQQAFLNKFQNGVLNETYPAELNNINNTQTTTHLQPLHHPSEARPPF
DLTSSGFL
  
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:**



**ACCN:** NM\_001621

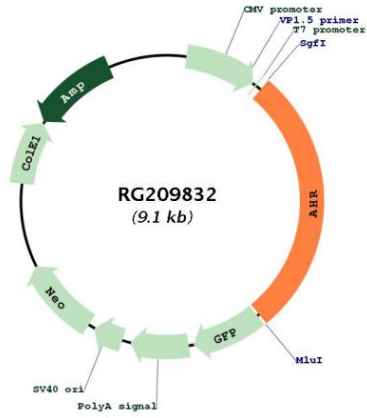
**ORF Size:** 2544 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001621.5</a>
<b>RefSeq Size:</b>	5496 bp
<b>RefSeq ORF:</b>	2547 bp
<b>Locus ID:</b>	196
<b>UniProt ID:</b>	<a href="#">P35869</a>
<b>Cytogenetics:</b>	7p21.1
<b>Domains:</b>	PAS, HLH, PAC
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
<b>Gene Summary:</b>	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]

Product images:



Circular map for RG209832