

## Product datasheet for **RG209208**

### Retinoic Acid Receptor beta (RARβ) (NM\_016152) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Retinoic Acid Receptor beta (RARβ) (NM_016152) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RARB
Synonyms:	HAP; MCOPS12; NR1B2; RARbeta1; RRB2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG209208 representing NM\_016152  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTTACTGTATGGATGTTCTGTCTGAGTCTGGGCAAATCCTGGATTTCTACACTGCGAGTCCGT  
 CTTCTGCATGCTCCAGGAGAAAGCTCTCAAAGCATGCTTCAGTGGATTGACCCAAACCGAATGGCAGCA  
 TCGGCACACTGCTCAATCAATTGAAACACAGAGACCAGCTCTGAGGAACTCGTCCCAAGCCCCCATCT  
 CCACCTTCTCCCCCTCGAGTGTACAAACCCTGCTTCGTCTGCCAGGACAAATCATCAGGGTACCACTATG  
 GGGTCAGCGCCTGTGAGGGATGTAAGGGCTTTTTCCGAGAAAGTATTCAGAAGAAATGATTTACACTTG  
 TCACCGAGATAAGAAGTGTATTATAAAAGTACCAGGAATCGATGCCAATACTGTGACTCCAGAAG  
 TGCTTTGAAGTGGGAATGTCAAAGAATCTGTCAGGAATGACAGGAACAAGAAAAAGAAGGAGACTCGA  
 AGCAAGAATGCACAGAGAGCTATGAAATGACAGCTGAGTTGGACGATCTCACAGAGAAGATCCGAAAAGC  
 TCACCAGGAAACTTTCCCTTCACTCTGCCAGCTGGGTAATACACCACGAATTCAGTGTGACCATCGA  
 GTCGACTGGACCTGGGCTCTGGGACAAATTCAGTGAAGTGGCCACCAAGTGCATTATTAAGATCGTGG  
 AGTTTGCTAAACGTCTGCCTGGTTTCACTGGCTTGACCATCGCAGACCAATACCTGTGAAGGCCGC  
 CTGCCTGGACATCCTGATTCTTAGAATTTGCACCAGGTATACCCAGAACAAGACACCATGACTTTCTCA  
 GACGGCCTTACCCTAAATCGAACTCAGATGCACAATGCTGGATTTGGTCTCTGACTGACCTTGTGTTCA  
 CCTTTGCCAACAGCTCCTGCCTTTGAAATGGATGACACAGAAACAGGCCTTCTCAGTGCCATCTGCTT  
 AATCTGTGGAGACCGCCAGGACCTTGAGGAACCGACAAAAGTAGATAAGCTACAAGAACCATTGCTGGAA  
 GCACTAAAAATTTATATCAGAAAAAGACGCCAGCAAGCCTCACATGTTTCAAAGATCTTAATGAAAA  
 TCACAGATCTCCGTAGCATCAGTGCTAAAGTGCAGAGCGTGAATTACCTTGAAAAATGAAATTCCTGG  
 ATCAATGCCACCTCTCATTCAAGAAATGCTGGAGAATTCTGAAGGACATGAACCTTGACCCCAAGTTCA  
 AGTGGGAACACAGCAGAGCACAGTCTAGCATCTCACCCAGCTCAGTGGAAAACAGTGGGGTCAGTCACT  
 CACCCTCGTGCAA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG209208 representing NM\_016152  
 Red=Cloning site Green=Tags(s)

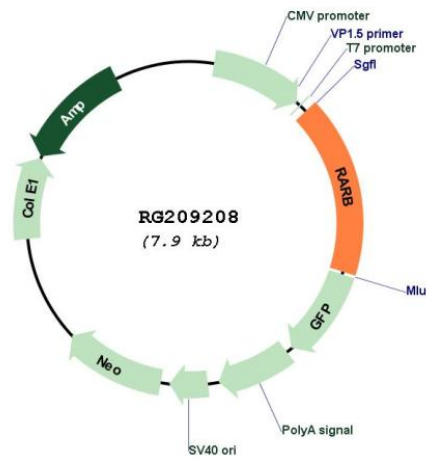
MFDCMDVLSVSPGQILDIFYTASPSSCMLQEKALKACFSGLTQTEWQHRHTAQSIETQSTSSEELVSPSPS  
 PLPPPRVYKPCFVCQDKSSGYHYGVSACEGCKGFFRRSIQKNMIYCHRDKNCVINKVTRNRCQYCRLOK  
 CFEVGMSESVRNDNRNKKKETSQECTESYEMTAELDDLTEKIRKAHQETFPSLCQLGKYTTNSSADHR  
 VRLDLGLWDFSELATKCIKIVEFAKRLPGFTGLTIADQITLLKAACLDLILIRICTRYTPEQDTMTFS  
 DGLTLNRTQMHNAGFGPLDVLVTFANQLLPLEMDDTETGLLSAICLICGDRQDLEETPKVDKLEPPLLE  
 ALKIYIRKRRPSKPHMFPKILMKITDLRSISAKGAERVITLKMEIPGSMPLLIQEMLENSEGHEPLTPSS  
 SGNTAEHSPSISPSSVENSQVSLVQ

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_016152

**ORF Size:** 1008 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.

<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>RefSeq:</b>	<a href="#">NM_016152.2</a> , <a href="#">NP_057236.1</a>
<b>RefSeq Size:</b>	2762 bp
<b>RefSeq ORF:</b>	1011 bp
<b>Locus ID:</b>	5915
<b>UniProt ID:</b>	<a href="#">P10826</a>
<b>Cytogenetics:</b>	3p24.2
<b>Domains:</b>	HOLI, zf-C4
<b>Protein Families:</b>	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
<b>Protein Pathways:</b>	Non-small cell lung cancer, Pathways in cancer, Small cell lung cancer
<b>Gene Summary:</b>	This gene encodes retinoic acid receptor beta, a member of the thyroid-steroid hormone receptor superfamily of nuclear transcriptional regulators. This receptor localizes to the cytoplasm and to subnuclear compartments. It binds retinoic acid, the biologically active form of vitamin A which mediates cellular signalling in embryonic morphogenesis, cell growth and differentiation. It is thought that this protein limits growth of many cell types by regulating gene expression. The gene was first identified in a hepatocellular carcinoma where it flanks a hepatitis B virus integration site. Alternate promoter usage and differential splicing result in multiple transcript variants. [provided by RefSeq, Mar 2014]