

## Product datasheet for **RC218031**

### **EYA1 (NM\_172059) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	EYA1 (NM_172059) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EYA1
Synonyms:	BOP; BOR; BOS1; OFC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC218031 representing NM\_172059  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAATGCAGGATCTAACAGCCCGCATAGCCGCTGAGTGGTAGTAGTGAATCCCCAGTGGCCCCA  
 AACTCGGTAACCTCATATAAATAGTAATTCATGACTCCAATGGCACCGAAAGTTAAAACAGAGCCAAT  
 GAGCAGCAGTGAACAGCTTCAACGACAGCCGACGGGTCTTTAAACAATTTCTCAGGTTACGAATTGGG  
 AGCAGTAGTTTACAGCCACGACCAACTCACCAGTTCTCTCACCACAGATTTACCCTTCCAACAGACCAT  
 ACCCACATATTCTCCCTACCCCTTCTCACAACTATGGCTGCATATGGGCAAACACAGTTTACCACAGG  
 AATGCAACAAGCTACAGCCTATGCCACGTACCCACAGCCAGGACAGCCGTACGGCATTCTCTCATATGGC  
 ATCAAGACTGAAGGTGGATTGTACAGTCTCAGTCACTGGACAGACAGGATTTCTCAGCTATGGCACAA  
 GCTTCAGTACCCCTCAACTGGACAGGCACCATACAGTACCAGATGCAAGGTAGCAGTTTTACAACATC  
 ATCAGGAATATACAGGAAATAATCACTCACAAATCTCTGGATTTAATAGTTCACAGCAGGACTAT  
 CCGTCTTATCCCAGTTTTGGCCAGGGTCACTACGACAGTATTATAACAGCTCACCGTATCCAGCACATT  
 ATATGACCAGCAGCAACACCAGCCAACGACACCATCCACCAATGCCACTTACCAGCTTCAAGAACCGCC  
 ATCTGGCATCACAGCCAAGCAGTTACAGATCCCACAGCAGAGTACAGCACAAATCCACAGCCCATCAACA  
 CCCATTAAGATTAGATTCTGATCGATTGCGTCGAGGTTAGATGGGAAATCACGTGGACGGGGCCGAA  
 GAAACAATAATCCTTACCTCCCCAGATTCTGATCTTGAGAGAGTGTTCATCTGGGACTTGGATGAGAC  
 AATCATTGTTTTCCACTCCTTGTACTGGGTCTACGCCAACAGATATGGGAGGAAATGTGACCAAGTC  
 CATATAGATGATGTTTTCTCAGATGATAACGGACAGGACCTAAGCACATATAACTTTGGAACAGATGGT  
 TTCCTGCTGCAGCAACCACTGCTAACTTATGTTGGCACTGGTGTACGGGGCGGTGGACTGGATGAG  
 AAAGTTGGCCTTCCGCTACAGACGGGTAAGAGATCTACAACACCTACAAAAATAATGTTGGAGGTCTG  
 CTTGGTCCAGCTAAGAGGGAAGCCTGGCTGCAGTTGAGGGCCGAAATTGAAGCCCTGACCGACTCCTGGT  
 TGACACTGGCCCTGAAAGCACTCTCGCTCATTCACTCCCGGACAAACTGTGTGAATATTTAGTAACAAC  
 TACTCAGCTCATCCAGCATTGGCGAAAGTCTGCTGTATGGGTTAGGAATTGTATTTCCAATAGAAAAAT  
 ATTTACAGTGCAACTAAAATAGGAAAAGAAAGCTGTTTTGAGAGAATAATTCAAAGGTTTGGAGAAAAAG  
 TGGTGTATGTTGTTATAGGAGATGGTGTAGAAGAACAAGGAGCAAAAAAGCACGCGATGCCCTCTG  
 GAGGATCTCCAGCCACTCGGACCTCATGGCCCTGCACCATGCCTTGGAACTGGAGTACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC218031 representing NM\_172059  
 Red=Cloning site Green=Tags(s)

MEMQDLTSPHSRLSGSSESPSGPKLGNSHINSNMTPNGTEVKTEPMSSSETASTADGSLNNSGSAIG  
 SSSFSPRPTHQFSPPQIYPSNRYPHILPTSSQTMAAYGQTQFTTGMQQATAYATYPQGQPYGISSYG  
 IKTEGGLSQSQSPGQTGFLSYGTSFSTPQPGQAPYSYQMQGSSFTTSSGIYTGNNSLTNSSGFNSSQDY  
 PSYPSFGQGQYAQYNNSSPYPAYHYMTSSNTSPTTPSTNATYQLQEPSSGITSQAVTDPTAEYSTIHPST  
 PIKDSDSLRRGSDGKSRGRRRNNPSPPDSLERVFIWDLDETIIVFHSLLTGSYANRYGRECDQV  
 HIDDVSSDDNGQDLSTYNFGTDGFPAATSANLCLATGVRGGVDWMRKLAFRYRRVKEIYNTYKNNVGG  
 LGPAKREAWLQLRAEIEALTDSWLTALKALSLIHSRTNCVNILVTTTQLIPALAKVLLYGLGIVFPIEN  
 IYSATKIGKESCFERIIQRFGRKVVVVVIGDGVVEEQGAKKHAMPFWRISSHSDLMALHHALELEYL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg3458\\_g01.zip](https://cdn.origene.com/chromatograms/mg3458_g01.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_172059

**ORF Size:** 1671 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](#)

**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).

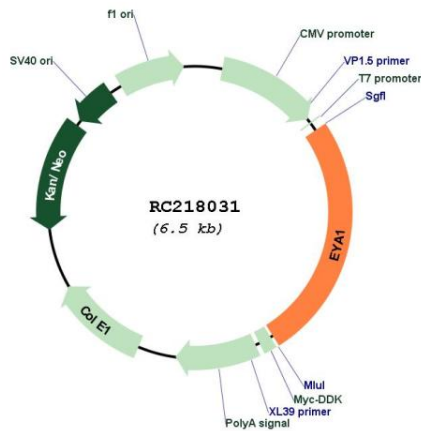
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_172059.3, NP\\_742056.1](#)

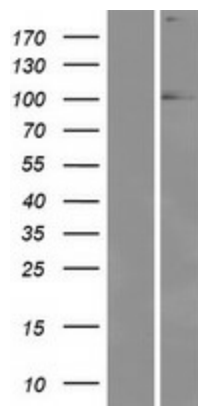
**RefSeq Size:** 3610 bp  
**RefSeq ORF:** 1761 bp  
**Locus ID:** 2138  
**UniProt ID:** [Q99502](#)  
**Cytogenetics:** 8q13.3  
**Protein Families:** Druggable Genome, Phosphatase, Transcription Factors  
**MW:** 60.5 kDa

**Gene Summary:** This gene encodes a member of the eyes absent (EYA) family of proteins. The encoded protein may play a role in the developing kidney, branchial arches, eye, and ear. Mutations of this gene have been associated with branchiootorenal dysplasia syndrome, branchiootic syndrome, and sporadic cases of congenital cataracts and ocular anterior segment anomalies. A similar protein in mice can act as a transcriptional activator. Alternatively spliced transcript variants have been identified for this gene. [provided by RefSeq, Dec 2013]

### Product images:



Circular map for RC218031



Western blot validation of overexpression lysate (Cat# [LY406817]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218031 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).