

Product datasheet for **RG218031**

EYA1 (NM_172059) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EYA1 (NM_172059) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EYA1
Synonyms:	BOP; BOR; BOS1; OFC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG218031 representing NM_172059
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAATGCAGGATCTAACAGCCGCATAGCCGCTGAGTGGTAGTAGTGAATCCCCAGTGGCCCCA
 AACTCGGTAACTCTCATATAAATAGTAATTCATGACTCCAATGGCACCGAAAGTAAAAACAGAGCCAAT
 GAGCAGCAGTGAACAGCTTCAACGACAGCCGACGGGTCTTTAAACAATTTCTCAGGTTACGAATTGGG
 AGCAGTAGTTTACGCCACGACCAACTACCAGTTCTCTCCACCACAGATTTACCCTTCCAACAGACCAT
 ACCCACATATTCTCCCTACCCCTTCTCACAACTATGGCTGCATATGGGCAAACACAGTTTACCACAGG
 AATGCAACAAGCTACAGCCTATGCCACGTACCCACAGCCAGGACAGCCGTACGGCATTCTCTCATATGGC
 ATCAAGACTGAAGGTGGATTGTACAGTCTCAGTCACTGGACAGACAGGATTTCTCAGCTATGGCACA
 GCTTCAGTACCCCTCAACTGGACAGGCACCATACAGCTACCAGATGCAAGGTAGCAGTTTTACAACATC
 ATCAGGAATATACAGGAAATAATCACTCACAAATTCCTCTGGATTTAATAGTTCACAGCAGGACTAT
 CCGTCTTATCCCAGTTTTGGCCAGGGTCAGTACGCACAGTATTATAACAGCTCACCGTATCCAGCACATT
 ATATGACCAGCAGCAACACCAGCCAACGACACCATCCACCAATGCCACTTACCAGCTTCAAGAACCGCC
 ATCTGGCATCACAGCCAAGCAGTTACAGATCCCACAGCAGAGTACAGCACAATCCACAGCCCATCAACA
 CCCATTAAGATTAGATTCTGATCGATTGCGTCGAGGTTAGATGGGAAATCACGTGGACGGGGCCGAA
 GAAACAATAATCCTTACCTCCCCAGATTCTGATCTTGAGAGAGTGTTCATCTGGGACTTGGATGAGAC
 AATCATTGTTTTCCACTCCTTGTACTGGGCTACGCCAACAGATATGGGAGGAAATGTGACCAAGTC
 CATATAGATGATGTTTTCTCAGATGATAACGGACAGGACCTAAGCACATATAACTTTGGAACAGATGGCT
 TTCCTGCTGCAGCAACCAGTGTAACTTATGTTGGCACTGGTGTACGGGGCGGTGGACGATGAG
 AAAGTTGGCCTTCGCTACAGACGGTAAAAGAGATCTACAACACCTACAAAAATAATGTTGGAGGTCTG
 CTTGGTCCAGCTAAGAGGGAAGCCTGGCTGCAGTTGAGGGCCGAAATTGAAGCCCTGACCGACTCCTGGT
 TGACACTGGCCCTGAAAGCACTCTCGCTCATTCACTCCCGGACAACTGTGTGAATATTTAGTAACAAC
 TACTCAGCTCATCCAGCATTGGCGAAAGTCTGCTGTATGGGTTAGGAATTGTATTTCCAATAGAAAAAT
 ATTTACAGTGAACATAAAATAGGAAAAGAAAGCTGTTTTGAGAGAATAATTCAAAGGTTTGGAGAAAAAG
 TGGTGTATGTTGTTATAGGAGATGGTGTAGAAGAAGAACAAGGAGCAAAAAAGCACGCGATGCCCTCTG
 GAGGATCTCCAGCCACTCGGACCTCATGGCCCTGCACCATGCCTTGGAACTGGAGTACCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG218031 representing NM_172059
 Red=Cloning site Green=Tags(s)

MEMQDLTSPHSRLSGSSESPSGPKLGNHINSNSMTPNGTEVKTEPMSSSETASTTADGSLNNSGSAIG
 SSSFSPRPTHQFSPPQIYPSNRYPHILPTSSQTMAAYGQTQFTTGMQQATAYATYPQGPQPYGISSYG
 IKTEGGLSQSQSPGQTGFLSYGTSFSTPQGPAPYSYQMGGSSFTTSSGIYTGNNSLTNSSGFNSQQDY
 PSYPSFGQGQYAYQYNSPYPAYHYMTSSNTSPTTSTNATYQLQEPPSGITSQAVTDPTAEYSTIHPST
 PIKSDSDRLRRGSDGKSRGRRRNNPSPPPSDLERFVWDLDETIIVFHSLLTGSYANRYGRECDQV
 HIDDVSSDDNGQDLSTYNFGTDGFPAAAATSANLCLATGVRGGVDWMRKLAFRYRRVKEIYNTYKNNVGG
 LGPAKREAWLQLRAEIEALTDSWLTALKALSLIHSRTNCVNILVTTTQLIPALAKVLLYGLGIVFPIEN
 IYSATKIGKESCFERIIQRFGRKVVVVVIGDGVVEEQGAKKHAMPFWRISSHSDLMALHHALELEYL

TRTRPLE - GFP Tag - V

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 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:

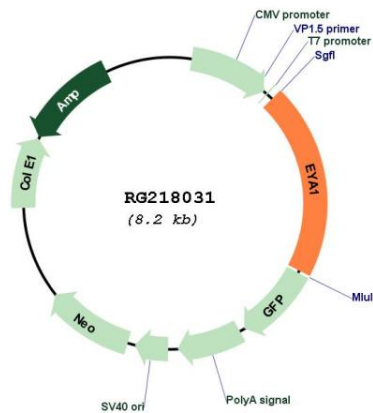
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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

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 RG218031