

Product datasheet for **RC221561**

EYA1 (NM_172058) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EYA1 (NM_172058) 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:

>RC221561 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAAATGCAGGATCTAACAGCCCGCATAGCCGCTGAGTGGTAGTAGTGAATCCCCAGTGGCCCCA
 AACTCGGTAACCTCATATAAATAGTAATTCATGACTCCAATGGCACCGAAGTAAAAACAGAGCCAAT
 GAGCAGCAGTGAACAGCTTCAACGACAGCCGACGGGTCTTTAAACAATTTCTCAGGTTACGAATTGGG
 AGCAGTAGTTTACAGCCACGACCAACTCACCAGTTCTCTCCACCACAGATTTACCCTTCCAACAGACCAT
 ACCCACATATTCTCCCTACCCCTTCTCACAACTATGGCTGCATATGGGCAAACACAGTTTACCACAGG
 AATGCAACAAGCTACAGCCTATGCCACGTACCCACAGCCAGGACAGCCGTACGGCATTCTCTCATATGGT
 GCATTGTGGGCAGGCATCAAGACTGAAGGTGGATTGTCACAGTCTCAGTCACCTGGACAGACAGGATTTT
 TCAGCTATGGCACAAGCTTCAGTACCCCTCAACCTGGACAGGCACCATACAGCTACCAGATGCAAGGTAG
 CAGTTTTACAACATCATCAGGAATATACAGGAAATAATCACTCACAAATTCCTCTGGATTTAATAGT
 TCACAGCAGGACTATCCGTCTTATCCCAGTTTTGGCCAGGGTCAGTACGCACAGTATTATAACAGCTCAC
 CGTATCCAGCACATTATATGACCAGCAGCAACACCAGCCCAACGACACCATCCACCAATGCCACTTACCA
 GCTTCAAGAACC GCCATCTGGCATCACCAGCCAAGCAGTTACGGATCCCACAGCAGAGTACAGCACAAATC
 CACAGCCCATCAACCCATTAAAGATTCAGATTCTGATCGATTGCGTCGAGGTTTCAGATGGGAAATCAC
 GTGGACGGGGCCGAAGAAACAATAATCCTTACCTCCCCAGATTCTGATCTTGAGAGAGTGTTCATCTG
 GGACTTGGATGAGACAATCATTGTTTTCCACTCCTTGTACTGGGTCTACGCCAACAGATATGGGAGG
 GATCCACCCACTTCAGTTTCCCTTGGACTGCGAATGGAAGAAATGATTTTCAACTGGCAGACACACATT
 TATTTTTAATGACTTGAAGAATGTGACCAAGTCCATATAGATGATGTTTCTTCAGATGATAACGGACA
 GGACCTAAGCACATATAACTTTGGAACAGATGGCTTTCCTGCTGCAGCAACCAGTCTAAGTATGTTTGG
 GCAACTGGTGTACGGGGCGGTGTGGACTGGATGAGAAAGTTGGCCTTCCGCTACAGACGGGTAAAAGAGA
 TCTACAACACCTACAAAAATAATGTTGGAGGTCTGCTTGGTCCAGCTAAGAGGGAAGCCTGGCTGCAGTT
 GAGGGCCGAAATTGAAGCCCTGACCGACTCCTGGTTGACACTGGCCCTGAAAGCACTCTCGCTCATTAC
 TCCCGGACAACTGTGTGAATTTTTAGTAACTACTCAGCTCATCCCAGCATTGGCGAAAGTCTCTGC
 TGTATGGTTAGGAATTGATTTCCAATAGAAAATTTTACAGTGAACATAAAATAGGAAAAGAAAGCTG
 TTTTGAGAGAATAATTCAAAGGTTTGAAGAAAAGTGGTGTATGTTGTTATAGGAGATGGTGTAGAAGAA
 GAACAAGGAGCAAAAAGCACGGATGCCCTTCTGGAGGATCTCCAGCCACTCGGACCTCATGGCCCTGC
 ACCATGCCTTGGAACTGGAGTACCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221561 protein sequence
 Red=Cloning site Green=Tags(s)

MEMQDLTSPHSRLSGSSESPSPKLGNSHINSNSMTPNGTEVKTEPMSSSETASTADGSLNNSGSAIG
 SSSFSRPTHQFSPPQIYPSNRPYPHILPTSSQTMAAYGQTQFTTGMQQATAYATYPQPGQPYGISSYG
 ALWAGIKTEGGLSQSQSPGQTGFLSYGTSFSTPQPGQAPYSYQMGGSSFTTSSGIYTGNNSLTNSGFSN
 SQQDYPSYPSFGGQYAQYNNSSPYPAHYMTSSNTSPTTPSTNATYQLQEPSPGITSQAVDPTAEYSTI
 HSPSTPIKSDSDRLRRGSDGKSRGRRRNNNSPPPDSLDERVFIWDLDETIIVFHSLLTGSYANRYGR
 DPPTSVSLGLRMEEMIFNLADTHLFFNDLEECDQVHIDDVSSDDNGQDLSTYNFGTDGFPAAATSANLCL
 ATGVRGGVDWMRKLAFRYRRVKEIYNTYKNNVGLLGPAKREAWLQLRAEIEALTDSWLTALALKALSLIH
 SRTNCVNILVTTTQLIPALAKVLLYGLGIVFPIENIYSATKIGKESCFERIIQRFGRKVVVVVIGDGVVE
 EQGAKKHAMPFWRISSHSMLMALHHALELEYL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6562_a11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_172058

ORF Size: 1776 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.

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_172058.4](#)

RefSeq Size: 3933 bp

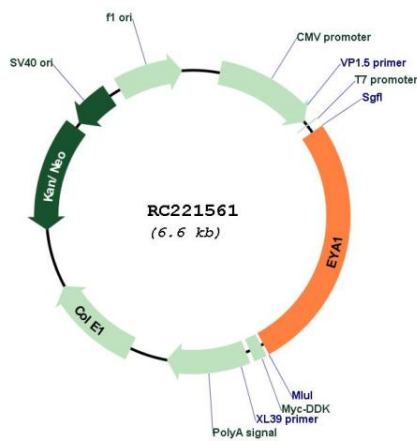
RefSeq ORF: 1779 bp

Locus ID: 2138

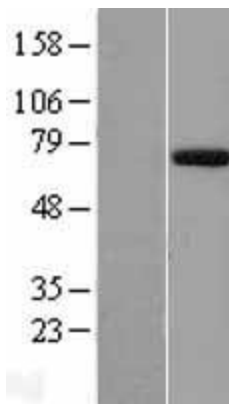
UniProt ID: [Q99502](#)
Cytogenetics: 8q13.3
Protein Families: Druggable Genome, Phosphatase, Transcription Factors
MW: 64.6 kDa

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 RC221561



Western blot validation of overexpression lysate (Cat# [LY406816]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221561 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).