

## Product datasheet for **RC219276**

### **EYA4 (NM\_172105) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	EYA4 (NM_172105) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EYA4
Synonyms:	CMD1J; DFNA10
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide  
Sequence:

>RC219276 representing NM\_172105  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAAGACTCCCAGGATTTAAATGAACAATCAGTAAAGAAAACGTGCACAGAATCAGATGTTTCACAAT  
CTCAGAATTCAGGTCTATGGAAATGCAGGACCTAGCAAGTCTCATACTCTTGTGGAGGTGGTGATAC  
TCCAGGTAGTCCAAACTGGAAAAATCTAATCTCAGCAGCACATCAGTTACTACAATGGGACAGGAGGG  
GAAAAATGACTGTTTTAAACACAGCAGACTGGTTGCTGAGTTGCAACACCCCTCTTCTGCAACAATGT  
CTCTTCTGCACTCAAACAGAGCCCTTGAACAGCAGTGAACCACAGCCAGACTGGAGATGGAGCGCT  
TGACACTTTTACTGGGTCACTAATTACAAGTAGTGGCTACAGCCCAGATCAGCACATCAGTATCCCA  
CAGCTGTATCCTTCCAAGCCCTATCCACACATTCTTCTACACCAGCAGCTCAAACAATGTCTGCCTATG  
CAGGCCAGACTCAGTATCGGGGATGCAGCAGCCAGCCGTCTACACAGCCTACTCACAGACAGGACAGCC  
CTACAGCTTGCCACTTACGATTTGGGTGTGATGTTGCCAGCCATCAAGACAGAGAGTGGACTTTCCAA  
ACTCAGTCCCCATTACAGAGTGGCTGCCTCAGTTACAGCCCAGGGTTCTACTCCACAGCCAGGCCAGA  
CACCTTATTCTTACCAAATGCCAGGTTCTAGTTTTGCACCATCATCTACTATTTATGCAAATAATTCAGT  
TTCCAATTCACGAATTTTCAGTGGTTCACAACAGGATTATCCATCCTATACAGCCTTTGGCCAAAACAG  
TATGCACAGTATTATTCAGCATCAACGTATGGAGCGTATATGACATCGAATAACACAGCCGATGGCACAC  
CCTCTTCAACCTCTACTTATCAGTTGCAGGAATCTCTCCAGGACTGACTAACCAACCAGGAGAGTTCGA  
TACCATGCAGAGTCCCTCCACACCCATCAAAGATCTTGATGAGAGAACCTGTAGGAGTCTGGGTCAAAG  
TCCAGAGGAAGAGGCCGGAAAAATAATCCCTCCCCGCCTCCTGATAGTGACCTGGAGCGTGTGTTGTCT  
GGGATTTGGATGAAACCATCATTGTTTTCACTCACTGCTCACCCGGTCTTATGCACAGAAGTATGGCAA  
GGATCCCCCATGGCTGTAACCCTTGGACTCCGCATGGAAGAAATGATTTTTAATCTTGCTGATACTCAT  
TTGTTTTTAATGATTTAGAGGAGTGTGATCAAGTTCATATAGATGATGTTTCCTCTGATGATAATGGGC  
AGGACTTAAGTACCTACAGTTTTGCAACTGATGGCTTCCATGCAGCTGCAAGTAGTGCAAACCTTTGTTT  
GCCAACAGGTGTAAGAGGAGGGTTGACTGGATGAGGAAGTTGGCTTTTCGTTACAGAAGAGTAAAAGAA  
TTATATAACACCTACAAGAACAACGTTGGAGGACTCCTTGGCCCTGCCAAGAGGGATGCCTGGCTACAGT  
TAAGGGCAGAGATTGAAGGTCTGACAGATTCTGGCTAACAAATGCACTTAAGTCTTTATCAATTATTAG  
CACTAGGAGTAAGTGCATAAATGTCTTGGTAACGACAACCTCACTGATCCCAGCACTTGGCAAGGTTCTA  
CTCTATAGTTTAGGAGGTGCTTTCCCATTTGAGAATTTTACAGTGCAACTAAAAAGGCAAGGAAAGCT  
GTTTTGAGCGTATAGTGTCCAGATTTGGCACTAACATAACTTATGTTGTGATTGGAGATGGCCGAGATGA  
GGAGCATGCCGCTAACAGCACAAACATGCCCTTCTGGAGGATATCCAGTCACTCAGACCTCTGGCTCTC  
CACAAGCACTGGAATTAGAGTATTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC219276 representing NM\_172105  
 Red=Cloning site Green=Tags(s)

MEDSQDLNEQSVKKTCTESDVSQSQNSRSMEMQDLASPHLTVGGGDTPGSSKLEKSNLSSTSVTTNGTGG  
 ENMTVLNTADWLLSCNTPSSATMSLLAVKTEPLNSSETTATTGDGALDTFTGSVITSSGYSPPSAHQYSP  
 QLYPSKPYPHILSTPAAQTMSAYAGQTQYSGMQQPAVYTAYSQTGQPYSLPTYDLGVMLPAIKTESGLSQ  
 TQSPQLQSGCLSYSPGFSTPQPGQTPYSYQMPGSSFAPSSTIYANNSVSNSTNFSGSQQDYPSTYAFGQNQ  
 YAQYYSASTYGAYMTSNNTADGTPSSTSTYQLQEESLPGLTNQPGFDTMQSPSTPIKDLDETRCRSSGSK  
 SRGRGRKNNPSPPPDSDLERFVVDLDETIIVFHSLLTGSYAQKYGKDPMAVTLGLRMEEMIFNLADTH  
 LFFNDLEECDQVHIDDVSSDDNGQDLSTYSFATDGFHAAASSANLCLPTGVRGGVDWMRKLAFRYRRVKE  
 LYNTYKNNVGGLLGPAKRDAWLQLRAEIEGLTDSWLTNALKSLSIISTRNCINLVTTTQLIPALAKVL  
 LYSLGGAFFIENIYSATKIGKESCFERIVSRFGTNIYVVIQDGRDEEHAANQHNMPPFWRISSHSDLLAL  
 HQALELEYL

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

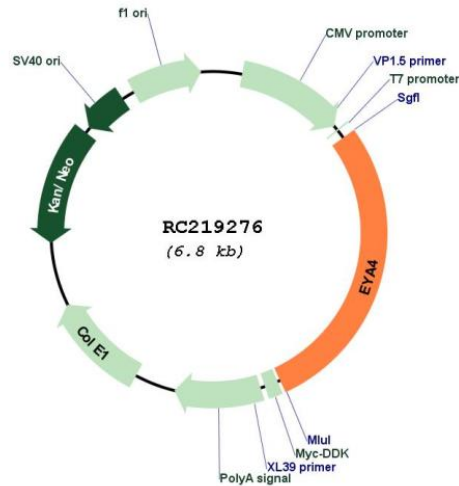
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_172105

**ORF Size:** 1917 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\\_172105.3](#), [NP\\_742103.1](#)

RefSeq Size: 5697 bp

RefSeq ORF: 1920 bp

Locus ID: 2070

UniProt ID: [O95677](#)

Cytogenetics: 6q23.2

Protein Families: Druggable Genome, Phosphatase, Transcription Factors

MW: 69.4 kDa

**Gene Summary:** This gene encodes a member of the eyes absent (EYA) family of proteins. The encoded protein may act as a transcriptional activator through its protein phosphatase activity, and it may be important for eye development, and for continued function of the mature organ of Corti. Mutations in this gene are associated with postlingual, progressive, autosomal dominant hearing loss at the deafness, autosomal dominant non-syndromic sensorineural 10 locus. The encoded protein is also a putative oncogene that mediates DNA repair, apoptosis, and innate immunity following DNA damage, cellular damage, and viral attack. Defects in this gene are also associated with dilated cardiomyopathy 1J. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2014]