

## Product datasheet for **MG215832**

### **Eya4 (NM\_010167) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Eya4 (NM_010167) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Eya4
Synonyms:	B130023L16Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MG215832 representing NM\_010167  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAAGACACCCAGGACCTAAATGAGCAATCTGTAAAGAAAACGTGCCAGAAGCAGATGTTTCGGAAC  
 CTCAGAATTCAGGTCTATGAAAATGCAAGACCTAGCAAGTCCCCATGCCTTGGTTGGAGGCAGTGATAC  
 ACCTGGGAGCTCCAAGCTGGATAAATCTGGTCTCAGCAGCACTTCAAGTCAACAACAATGGGACAGGAGTG  
 TCTCTTCTGAGTCAAAACAGAGCCCTTGACAGCAGTGAAGTCCACTACCAGACTGGAGATGGAGCGC  
 TTGACACTTTTACTGGGTGAGTAATAACAAGCAGCGGCTACAGCCCAGGTGGCGCAGCAGTACTCTCC  
 ACAGCTGTACCCCTCAAGCCCTATCCACACATCTTTTCTACACCAGCAGCTCAAACAATGTCGGCTAT  
 GCAGGCCAGACTCAGTACTCTGGGATGCAGCAGCCGGCCGTCTACACAGCCTACTCGCAGACAGGACAGC  
 CCTACAGCCTGCCTGCCTACGATCTTGGTGTGATGTTGCCAGCCATCAAGACGAAAAGTGGGCTTTCCCA  
 AACTCAGTCCCCGTTACAGAGTGGCTGCCTGAGCTACAGCCCTGGGTTTTCTACCCACAGCCAGGCCAG  
 ACGCCTTACTCTTACCAATGCCAGGTTCCAGCTTGCACCATCGTCTACTATTTATGCAATAATTCCG  
 TTTCTAATTCAACAACTTCAGCAGCTCACAGCAGGATTACCCATCCTACACAGCCTTTGGCCAAAACCA  
 ATATGCTCAGTATTACTCAGCATCAACCTATGGGGCATACATGACATCAAACAACACAGCTGACGGCACA  
 TCATCGTCAACATCAACTTATCAGCTGCAGGAATCTCTCCAAGGACTGACTAGCCAACCAGGAGAGTTTG  
 ATACAGTGCAGAGTCCCTCCACACCAATCAAAGATCTCGATGACAGAACATGTAGAAGTTCTGGGTCAA  
 GTCTCGAGGAAGAGGCCGAAAAATAATCCCTCCCACCTCCGGCAGTGACCTAGAGCGTGTGTTTGTG  
 TGGGACTTGGATGAAACCATCATCGTCTCCACTCTCCTCACGGGCTTTATGCACAGAAGTATGGCA  
 AGGATCCCCCAATGGCTGTGACTCTCGGCTCCGGATGGAAGAAATGATCTTTAATCTTGCAGATACACA  
 TTTGTTTTTAATGACTTAGAGGAGTGTGATCAAGTTCATATAGATGATGTTTCCCTCCGACGACAATGGT  
 CAGGACTTAAGTACCTACAGTTTTGCAACTGATGGCTTCCATGCAGCTGCAAGTAGTGCGAACCTTTGTT  
 TGCCAACAGGTGTGAGAGGAGGAGTGGACTGGATGAGGAAGCTGGCTTTTCGTTACAGAAGAGTAAAGGA  
 ATTATATAACACCTACAAGAACAATGTTGGAGGACTCCTTGGCCCTGCTAAGAGGGATGCATGGCTGCAG  
 TTAAGGGCAGAGATCGAAGGCCTAACAGATTCTGGCTAACGAATGCACTTAAGTCTTTATCAATTATTA  
 GTACTAGGAGTAACTGTGTAATGTCTTGGTAACGACAACCCAGCTGATTCTGCTCTTGCAAAAAGTCTCT  
 GCTCTACAGCCTAGGAGGTGCTTTCCCATTTGAGAACATTTACAGCGCAACAAAAATAGGAAAAGAAAGT  
 TGCTTTGAGCGAATAATGCAAAGTTTGGCAGAAAAGTAGTGTATGTTGTAATTGGGGATGGTGTAGAAG  
 AAGAGCAGGCAGCAAAAAGCACAAACATGCCCTTTTGGAGGATATCAAGCCACTCGGACCTCTTGGCTCT  
 ACATCAAGCACTGGAATTAGAGTATTTG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG215832 representing NM\_010167  
 Red=Cloning site Green=Tags(s)

MEDTQDLNEQSVKKTCPADVSEPNRSRSMEMQDLASPHALVGGSDTPGSSKLDKSGLSSTSVTTNGTGV  
 SLLAVKTEPLHSSSESTTTTGDGALDFTGVSITSSGYSRPSAQYSPQLYPSKYPHILSTPAAQMSAY  
 AGQTQYSGMQQPAVYTAYSQTGQPYSLPAYDLGVMLPAIKTESGLSQTQSPLQSGCLSYSPGFSTPQPGQ  
 TPYSYQMPGSSFAPSSTIYANNSVSNSTNFSSSQDYPSYAFGQNYAQYYSASTYGAYMTSNNTADGT  
 SSSSTSTYQLQESLQGLTSQPGFDTVQSPSTPIKDLDDRTCRSSGSKSRGRGRKNNPSPPPSDLERFV  
 WDLDETIIVFHSLLTGSYAQKYGKDPMAVTLGLRMEEMIFNLADTHLFFNDLEECDQVHIDDVSSDDNG  
 QDLSTYSFATDGFHAAASSANLCLPTGVRGGVDWMRKLAFRYRRVKELYNTYKNNVGGLLGPAKRDWLQ  
 LRAEIEGLTDSWLTNALKSLSIISTRNCVNVLVTTTQLIPALAKVLLYSLGGAFPIENIYSATKIGKES  
 CFERIMQRFRGRKVVVVVIGDGVVEEQAAKKHNMPPFWRISSHSDLLALHQALELEYL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_010167

**ORF Size:** 1848 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\\_010167.4](#), [NP\\_034297.2](#)

**RefSeq Size:** 4099 bp

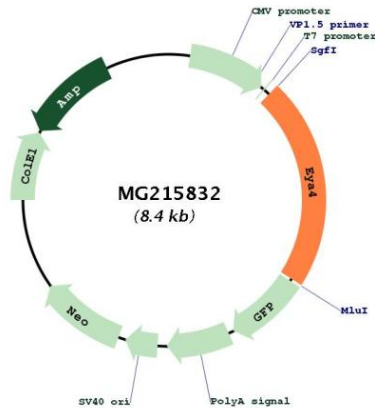
**RefSeq ORF:** 1851 bp

**Locus ID:** 14051

**Cytogenetics:** 10 10.44 cM

**Gene Summary:**

Tyrosine phosphatase that specifically dephosphorylates 'Tyr-142' of histone H2AX (H2AXY142ph). 'Tyr-142' phosphorylation of histone H2AX plays a central role in DNA repair and acts as a mark that distinguishes between apoptotic and repair responses to genotoxic stress. Promotes efficient DNA repair by dephosphorylating H2AX, promoting the recruitment of DNA repair complexes containing MDC1. Its function as histone phosphatase probably explains its role in transcription regulation during organogenesis. May be involved in development of the eye (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for MG215832