

Product datasheet for **MG208198**

Eya3 (NM_010166) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eya3 (NM_010166) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Eya3
Synonyms:	A1844637
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208198 representing NM_010166
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAAGAAGAGCAAGACCTACCAGAGCAACCGGTGAAAAAGCCAAGATGCAGGAACCAAGAGAACAGA
 CTTAAGTCAAGTAAACAACCCAGATGCCAGTGATGAGAAGCCTGAGACATCCAGCCTTGGCTCAAATCT
 CAGCATGTCAGAGGAAATTATGACATGCACCGATTACATCCCTCGCTCATCCAATGATTATACCTCACAA
 ATGTATTCTGCAAAACCTTATGCACACATCCTCTCAGTTCCTGTTTCGAAACCCTTATCCTGGGCAGA
 CTCAGTACCAGACTGCAGCAATCTCAACCCTACGCTGTCTACCCTCAGGCAACCCAACTTACGGACT
 ACCTCCTTTCGCTTCAAGCACAATGCCAGCCTGATACCACTTCATCTGCAATTGCCAATATTCCAGCA
 GCAGCTGTGGCCAGCATCTAAACCAGGATTATCCCACCTATACTATTCTTGACAGAATCAGTACCAGG
 CCTGCTACCCAGTTCAGCTTTGGAGTCACAGGTCAGACTAACAGTGATGCTGAGACCACAACATTAGC
 AGCTACAACATACCAGACGGAGAAGCCTAGTGCTATGGTGCCTGCACCAGCCACACAGAGGCTTCCCTCC
 GACTCCTCTGCAAGCCACCTTTGTCCCAGACTACACCAATAAAGATGCTGATGATCAGGCCAGGAAAA
 ACATGACTGTCAAGAACCGGGCAAGAGGAAAGCTGATGCCAGCTCTCCAGGACAGTGAATTGGAACG
 GGTATTTCTCTGGGACTTGGACGAAACCATCATCATCTTTCATTCCCTTCTCACTGGATCCTATGCTCAG
 AAGTATGGAAGGACCCAACAGTAGTAATTGGCTCAGGTTAACCATGGAAGAAATGATTTTTGAAGTGG
 CTGATACACATCTATTTTCAATGACTTAGAGGAGTGTGACCAGGTGCATGTGGAAGATGTGGCTTCTGA
 TGACAAATGGCCAGGATTTGAGCAACTACAGTTTCTCCACAGATGGTTTCAGTGGTTCAGGAGGCAGTGGT
 AGCCACGGCTCATCTGTGGCGTTCAGGGAGGTGTGGACTGGATGAGGAAACTGGCCTTTCGCTACCGAA
 AAGTGAAGGAAATCTACGACAAGCATAAAAGCAATGTGGTGGCCTCCTCAGCCCCAGAGGAAGGAGC
 AACTGCAGAGACTCAGAGCAGAGATCGAGGTGCTGACGGACTCCTGGTTAGGAACTGCGCTCAAGTCTTG
 CTTCTCATCCAGTCTCGAAAGAAGTGTGCGAATGTTCTGATCACTACCACGCAGTTGGTTCAGCCCTGG
 CCAAGGTTCTCCTGTATGGACTAGGAGAGATATTTCTATTGAAAACATCTACAGTGCTACCAAAATCGG
 TAAGGAGAGCTGCTTTGAGAGAATTGTTTCGAGGTTTGGGAAAAAAGTCACATATGTAGTGATTGGAGAT
 GGACGAGATGAAGAAATTCAGCCAAGCAGCACAAATGCCCTTCTGGAGGATCACAACCACGGAGATC
 TGGTGTCCCTGCACCAGGCTTTAGAGCTTGACTTCCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208198 representing NM_010166
 Red=Cloning site Green=Tags(s)

MEEEQDLPEQPVKKAKMQEPREQTLQVNNPDASDEKPEPSSLASNLSMSEEIMTCTDYIPRSSNDYTSQ
 MYSAPYAHILSVPVSETTYPGQTQYQTLQQSQPYAVYPQATQTYGLPPFASSTNASLIPTSSAIANIPA
 AAVASISNQDYPTYILGQNQYQACYPSSSFVGTGQNSDAETTTLAATTYQTEKPSAMVPAPATQRLPS
 DSSASPPLSQTTPNKDADDQARKNMTVKNRGKRKADASSQDSELERVFLWDLDETIIIFHSLLTGSYAQ
 KYGKDPTVVIGSGLTMEEMIFEVADTHLFFNDLEECDQVHVEDVASDDNGQDL SNYSFSTDGFSGSGGSG
 SHGSSVGVQGGVDWMRKLAFRYRKYVREIYDKHKSINVGGLLSPQRKEALQRLRAEIEVL TDSWLGTALKSL
 LLIQSRKNCANVLIITTTQLVPALAKVLLYGLGEIFPIENIYSATKIGKESCFERIVSRFGKKVTVYVIGD
 GRDEEIAAKQHNMPFWRITNHGDLVSLHQALELDFL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

ACCN:	NM_010166
ORF Size:	1530 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:	<ol style="list-style-type: none">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_010166.2 , NP_034296.2
RefSeq Size:	5204 bp
RefSeq ORF:	1533 bp
Locus ID:	14050
UniProt ID:	P97480
Cytogenetics:	4 65.68 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 (By similarity). Its function as histone phosphatase probably explains its role in transcription regulation during organogenesis. The phosphatase activity has been shown in vitro. Coactivates SIX1. Seems to coactivate SIX2, SIX4 and SIX5. The repression of precursor cell proliferation in myoblasts by SIX1 is switched to activation through recruitment of EYA3 to the SIX1-DACH1 complex and seems to be dependent on EYA3 phosphatase activity. May be involved in development of the eye. May play a role in mediating the induction and differentiation of cranial placodes.[UniProtKB/Swiss-Prot Function]