

Product datasheet for **MC206678**

Eya1 (BC060260) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eya1 (BC060260) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Eya1
Synonyms:	bor
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF: >BC060260
AACCAATAAGGTTAGGACAAGAGACTAGCTGTGGTTTGC GTTGCAAAAAACAAAACAAAACAAAAGCCCC
GAGGCTTCGTGGGCAGACCTACAAGGCTGCGCAAAACAAATCGGGGGATGAGATTTTGTCTTTCTTTGTC
TAGGCGTCTCAGATGCTATCTGCCGCTGCGGTTGCTGGGGCGCAAAGCGTTCCCAAACAGACCCGCGC
GAGCTGATGGCTCCGAGCTTGC GCGAGGTAGCGAGTGTGCAGGGCCACTTCCGACTGGAAGCCTTCCTG
TGGCGGTGCGCGGTGGCGGGTCTTCTGGGGAAGGCGATCGCGCTCAGTCGCTCCACAGCCGAGCCT
GCAGCAGCGCCCGGGCGCAGTCCCCGGGAGCCGGGCAATCCCCGGCTCTGCGCTCCGCTGCCAGCCGCG
TCACAGCGCCTCTGAGAGCTCCCGGTCCCGTGTTCCTGCACAGCAGCCAACTATGTCAGGAATGGAG
GTCTGCTAACACAGAAAACCTCAAGGAGCACACTAAACCGGTGGAGGCAGCAGATGTGAGCGCTGTGCGA
ACGTCTCACAGCAGTTCGATGTTGCTCTTTCCTCAAGTTCAGGTCTATGGAAATGCAGGATCTAACCA
GCCCGCATAGCCGACTGAGTGGTAGTAGCAATCCCCAGTGGTCCCAAACCTCGATAGCTCTCATATAAA
TAGTACTTCCATGACTCCCAATGGCACCGAAGTTAAAACAGAGCCAATGAGCAGCAGTGAATAGCTTCA
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CAGCTCACCCGTCTCTCCACCACAGATTTATCCTTCCAACAGATCATACCCACATATTCTCCCTACCCC
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ACAGGCACCGTACAGCTACCAGATGCAAGGTAGCAGCTTACCACGTATCAGGATTATATTCAGGAAAT
AATTCACCTACCAACTCCTCCGGATTCAACAGTTCACAGCAGGACTATCCGTCTTATCCCGGCTTTGGCC
AGGGTCAGTACGCACAGTATTATAACAGCTCGCGTATCCAGCACACTACATGACGAGCAGTAACACCAG
CCCGACCACACCGTCCACCAATGCCACTTACCAACTCCAGGAACCACTTCTGGCGTCACAGTCAGGCG
GTCACAGACCCACAGCAGAGTACAGTACAATCCACAGTCTTCCACACCCATTAAGAGACTGACTCCG
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CCCGATTCTGACCTTGAGAGAGTGTTCATCTGGGACCTGGACGAGACCATATTGTTTTCCACTCCTTG
CTCACGGGCTCTACGCCAACAGATACGGGAGGGATCCACCTACTTCTGTTTCCCTGGGACTACGAATGG
AAGAGATGATTTTCAACTTGGCAGACACATCTATTTTTCAATGACCTAGAAGAGTGTGACCAAGTCCA
TATAGATGATGTTTCATCAGACGACAACGGCCAGGACCTGAGCACATACTTTGGAACAGATGGCTTT



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CCTGCTGCAGCCACCAGTGCTAATTTATGCCTGGCAACTGGTGTCCGAGGTGGTGTGGACTGGATGCGGA
 AACTGGCCTTCCGCTACAGACGAGTAAAAGAGATCTACAACACCTACAAAAACAAGTGGGAGGTCTGCT
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 GATCCCAACAAGACTCCCACGCGTCACCTGGACAACCATGGAGCTATTTTATTTTCTCAGAGGTTCA
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 CAGATTTGCTGAGGTATAATTATATACCATATGATTCACCAAGACAGACTTCTCGGCTTCAAATAGTTG
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 CTAATGTTGCTCTCTACGTATGACAAGACAGACATAAACCTAGAGGGTATGGGAGAAACACAAAAATGA
 TCATGTTTGTGATGTTATAAAAAAGATTCTTCAAACCTGATGAATTTGTATACGGTCAGGAGTCTTTCTC
 ATTGTGGTCTTTGTGTTGCCATAAAATTACCCTTTGGATCAATTTTAGTTTATATTTAAGTTATTAAT
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 ATTAGTTTCTCCCTGATGCAGACAGAAATGGCCAGTGTGAGACCTCTTCATTTGATGCTGTTGTATTC
 TGCAGACTGAAAAGACAGCCTTGACCTTGGCCTTACTGTAACAGGTGTGCTGTGTCACGATTGTGTAC
 AGAACTTTTTTTTTTCTTCATTAATGTTGTGTTAAATTAATAAATTTGATTTGTGCGAGTAAAAAAAAAAAAA AAAAAAAAAAAAAA

- Restriction Sites:** EcoRI-NotI
- ACCN:** BC060260
- Insert Size:** 1758 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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: [BC060260](#), [AAH60260](#)

RefSeq Size: 4354 bp

RefSeq ORF: 1758 bp

Locus ID: 14048

Cytogenetics: 1 4.31 cM

Gene Summary: Functions both as protein phosphatase and as transcriptional coactivator for SIX1, and probably also for SIX2, SIX4 and SIX5 (PubMed:10490620). Tyrosine phosphatase that dephosphorylates 'Tyr-142' of histone H2AX (H2AXY142ph) and promotes efficient DNA repair via the recruitment of DNA repair complexes containing MDC1. '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 (PubMed:19234442). Its function as histone phosphatase may contribute to its function in transcription regulation during organogenesis (PubMed:14628042). Has also phosphatase activity with proteins phosphorylated on Ser and Thr residues (in vitro). Required for normal embryonic development of the craniofacial and trunk skeleton, kidneys and ears (PubMed:10471511). Together with SIX1, it plays an important role in hypaxial muscle development; in this it is functionally redundant with EYA2 (PubMed:17098221).[UniProtKB/Swiss-Prot Function]