

Product datasheet for **MR209161L4V**

Eya1 (NM_010164) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Eya1 (NM_010164) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Eya1
Synonyms:	bor
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_010164
ORF Size:	1758 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR209161).
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.
RefSeq:	NM_010164.2 , NP_034294.2
RefSeq Size:	4354 bp
RefSeq ORF:	1764 bp
Locus ID:	14048
Cytogenetics:	1 4.31 cM



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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]