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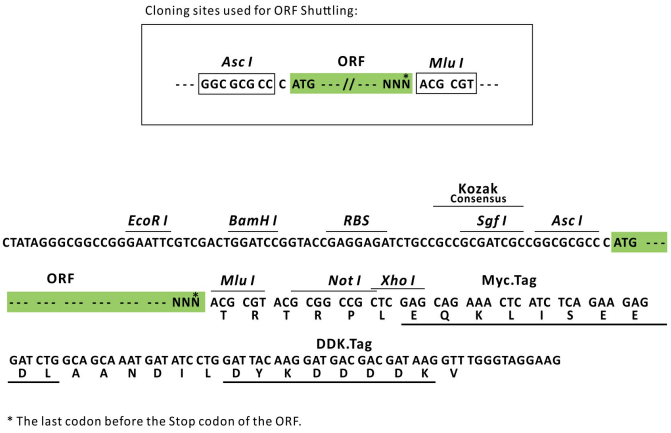
Product datasheet for MR227136L3

Egr1 (NM_007913) Mouse Tagged Lenti ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Egr1 (NM_007913) Mouse Tagged Lenti ORF Clone
Tag:	Myc-DDK
Symbol:	Egr1
Synonyms:	A530045N19Rik; egr; Egr-1; ETR103; Krox-1; Krox-24; Krox24; NGF1-A; NGFI-A; NGFIA; TIS8; Zenk; Zfp-6
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR227136).
Restriction Sites:	AscI-MluI
Cloning Scheme:	



ACCN:	NM_007913
ORF Size:	1599 bp

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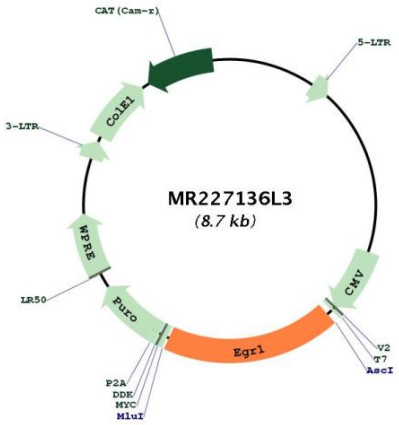
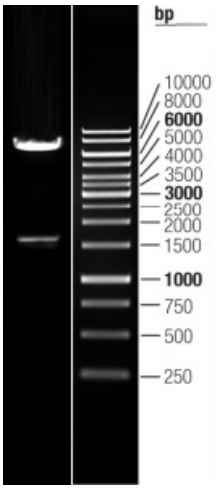
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_007913.5, NP_031939.1
RefSeq Size:	3072 bp
RefSeq ORF:	1602 bp
Locus ID:	13653
UniProt ID:	P08046
Cytogenetics:	18 18.76 cM

Gene Summary: Transcriptional regulator (PubMed:8336701, PubMed:8703054, PubMed:15958557). Recognizes and binds to the DNA sequence 5'-GCG(T/G)GGGCG-3'(EGR-site) in the promoter region of target genes (PubMed:8703054, PubMed:15958557, PubMed:2028256, PubMed:8939742). Binds double-stranded target DNA, irrespective of the cytosine methylation status (By similarity). Regulates the transcription of numerous target genes, and thereby plays an important role in regulating the response to growth factors, DNA damage, and ischemia (PubMed:11100120, PubMed:15958557). Plays a role in the regulation of cell survival, proliferation and cell death (PubMed:15265859, PubMed:15958557). Activates expression of p53/TP53 and TGFB1, and thereby helps prevent tumor formation (PubMed:15958557). Required for normal progress through mitosis and normal proliferation of hepatocytes after partial hepatectomy (PubMed:15265859). Mediates responses to ischemia and hypoxia; regulates the expression of proteins such as IL1B and CXCL2 that are involved in inflammatory processes and development of tissue damage after ischemia (PubMed:11100120). Regulates biosynthesis of luteinizing hormone (LHB) in the pituitary (PubMed:8703054). Regulates the amplitude of the expression rhythms of clock genes: ARNTL/BMAL1, PER2 and NR1D1 in the liver via the activation of PER1 (clock repressor) transcription (PubMed:26471974). Regulates the rhythmic expression of core-clock gene ARNTL/BMAL1 in the suprachiasmatic nucleus (SCN) (PubMed:29138967).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227136L3



Double digestion of MR227136L3 using AscI and MluI