

Product datasheet for **RC209956**

EGR1 (NM_001964) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EGR1 (NM_001964) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EGR1
Synonyms:	AT225; GOS30; KROX-24; NGFI-A; TIS8; ZIF-268; ZNF225
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209956 representing NM_001964
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCGCGGCCAAGGCCGAGATGCAGCTGATGTCCCCGCTGCAGATCTCTGACCCGTTCCGATCCTTTCT
 CCACTCGCCACCATGGACAACCTACCCTAAGCTGGAGGAGATGATGCTGCTGAGCAACGGGGCTCCCA
 GTTCTCGGGCGCCGGGGCCCCAGAGGGCAGCGGCAGCAACAGCAGCAGCAGCAGCAGCGGGGCGGT
 GGAGGCGGGGGGGCGCAGCAACAGCAGCAGCAGCAGCAGCACCTTCAACCCTCAGCGGACACGGGCG
 AGCAGCCCTACGAGCACCTGACCGCAGAGTCTTTTCTGACATCTCTCTGAACAACGAGAAGGTGCTGGT
 GGAGACCAGTTACCCAGCCAAACCACTCGACTGCCCCCATCACCTATACTGGCCGCTTTTCCCTGGAG
 CCTGCACCAACAGTGGCAACACCTTGTGGCCGAGCCCTCTTACAGTTGGTCACTGGCCTAGTGAGCA
 TGACCAACCCACCGCCCTCTCGTCTCAGCACCATCTCCAGCGCCCTCTCCGCTCCGCTCCAGAG
 CCCACCCCTGAGCTGCGCAGTGCATCCAACGACAGCAGTCCATTTACTCAGCGCACCCACCTCCCC
 ACGCCGAACACTGACATTTTCCCTGAGCCACAAAGCCAGGCCCTCCCGGGCTCGGCAGGGACAGCGCTCC
 AGTACCCGCTCCTGCCTACCCTGCCGCAAGGGTGGCTTCCAGGTTCCCATGATCCCCGACTACCTGTT
 TCCACAGCAGCAGGGGATCTGGGCTGGGCACCCAGACCAGAAGCCCTTCCAGGGCTGGAGAGCCGC
 ACCCAGCAGCCTTCGTAACCCCTCTGTCTACTATTAAGGCCCTTGCCTCAGTCGGGCTCCAGGACC
 TGAAGGCCTCAATACCAGTACCAGTCCAGCTCATCAAACCCAGCCGATGCGCAAGTACCCAAACCG
 GCCCAGCAAGACGCCCCACGAACGCCCTTACGCTTGGCCAGTGGAGTCTGTGATCGCCGCTTCTCC
 CGCTCCGACGAGCTCACCGCCACATCCGATCCACAGGCCAGAAGCCCTTCCAGTCCCGCATCTGCA
 TGCCGAACCTCAGCCGACGACACCTCACACCCACATCCGCACCCACACAGGGCAAAAGCCCTCGC
 CTGCGACATCTGTGAAGAAAGTTTGGCAGGAGCGATGAACGCAAGAGGCATACCAAGATCCACTTGCGG
 CAGAAGGACAAGAAAGCAGACAAAAGTGTGTGGCCTTCTCGGCCACCTCCTCTCTCTTCTTCCACCGT
 CCCCAGTGTACCTCTTACCCGTCGCCGTTACTACCTCTTATCCATCCCCGGCCACCCTCATAACC
 ATCCCCTGTGCCACCTCCTTCTCTCTCCCGCTCCTCGACCTACCCATCCCCTGTGCACAGTGGCTTC
 CCCTCCCGTGGTGGCCACCACGTACTCTGTTCCTTCCCGCTTCCCGGCCAGGTGACGAGTTC
 CTCTCAGCTGTACCAACTCCTCAGCGCTCCACAGGCTTTCGGACATGACAGCAACCTTTCTCC
 CAGGACAATTGAAATTTGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209956 representing NM_001964
 Red=Cloning site Green=Tags(s)

MAAAKAEMQLMSPLQISDPFGSFPSPMDNYPKLEEMMLLSNGAPQFLGAAGAPEGSGSNSSSSSSGGG
 GGGGGSNSSSSSSTFNPQADTGEQPYEHLTAESFPDISLNNEKVLVETSYPSTTRLPPIITYTGRFSLE
 PAPNSGNTLWPEPLFSLVSLVSMNPPASSSSAPSPAASSASASQSPPLSCAVPSNDSSPIYSAAPTFP
 TPNTDIFPEPQSQAFFGSAGTALQYPPPAKGGFQVPMIPDYLFPQQGDLGLGTPDQKPFQGLESR
 TQQPSLTPLSTIKAFATQSGSQDLKALNTSYQSLIKPSRMRKYPNRPSTPPHERPYACPVESCDRRFS
 RSDDELTRHIRIHTGQKPFQCRICMRNFRSDHLLTTHIRHTGKPFACDICGRKFARSDERKRHTKIHLR
 QKDKKADKSVVASSATSSLSSYSPVATSYPSPVTTSYSPATTSYSPVPTSFSSPGSSTYSPVHSGF
 PPSVATTYSSVPPAFPAQVSSFPSSAVTNSFSASTGLSDMTATFSPRTIEIC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2822_d05.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001964

ORF Size: 1629 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

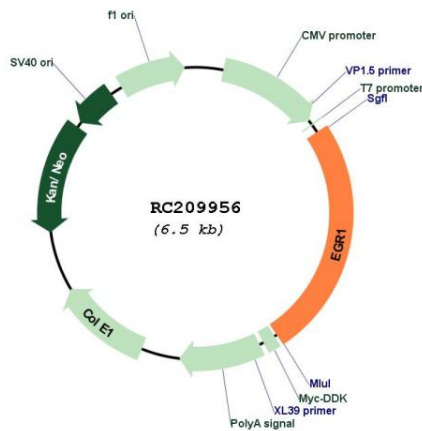
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

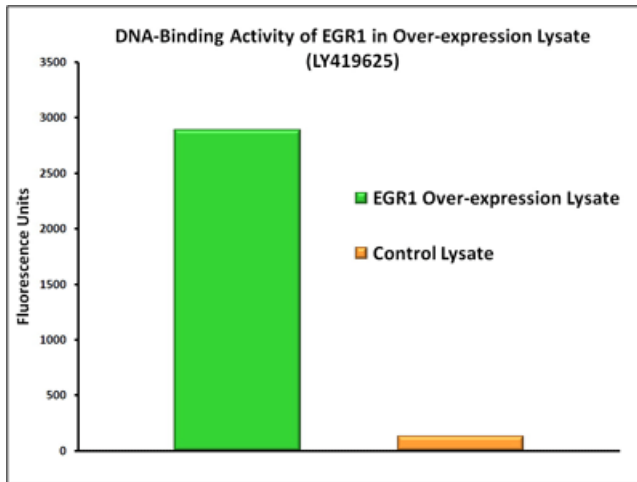
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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:	<u>NM_001964.3</u>
RefSeq Size:	3136 bp
RefSeq ORF:	1632 bp
Locus ID:	1958
UniProt ID:	<u>P18146</u>
Cytogenetics:	5q31.2
Domains:	zf-C2H2
Protein Families:	Druggable Genome
Protein Pathways:	Prion diseases
MW:	57.3 kDa
Gene Summary:	The protein encoded by this gene belongs to the EGR family of C2H2-type zinc-finger proteins. It is a nuclear protein and functions as a transcriptional regulator. The products of target genes it activates are required for differentiation and mitogenesis. Studies suggest this is a cancer suppressor gene. [provided by RefSeq, Dec 2014]

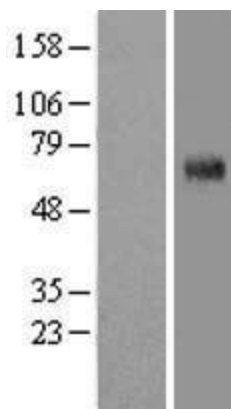
Product images:



Circular map for RC209956



DNA-binding activity of EGR1 was measured in OriGene over-expression lysate [LY419625] and a control lysate. Three microliters of each lysate was tested with a transcription factor binding assay utilizing EGR1-specific DNA sequences. The high level of activity observed in the over-expression lysate compared to the control lysate demonstrates that the expressed EGR1 is biologically active in the lysate. Overexpression cell lysates are prepared from HEK293T cells transfected with RC209956 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Western blot validation of overexpression lysate (Cat# [LY419625]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209956 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).