

Product datasheet for **RC212183**

EGR2 (NM_000399) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EGR2 (NM_000399) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EGR2
Synonyms:	AT591; CHN1; CMT1D; CMT4E; KROX20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC212183 representing NM_000399
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATGACCGCCAAGGCCGTAGACAAAATCCCAGTAACTCTCAGTGGTTTTGTGCACCAGCTGTCTGACA
 ACATCTACCCGGTGGAGGACCTCGCCGCCACGTGGTGACCATCTTTCCCAATGCCGAACCTGGGAGGCC
 CTTTGACCAGATGAACGGAGTGGCCGGAGATGGCATGATCAACATTGACATGACTGGAGAGAAGAGGTGCG
 TTGGATCTCCCATATCCCAGCAGCTTTGCTCCCGTCTCTGCACCTAGAAACCAGACCTTCACTTACATGG
 GCAAGTTCTCCATTGACCCTCAGTACCCTGGTGCCAGCTGCTACCCAGAAGGCATAATCAATATTGTGAG
 TGCAGGCATCTTGAAGGGGTCACTTCCCAGCTTCAACCACAGCCTCATCCAGCGTCACCTCTGCCTCC
 CCCAACCCACTGGCCACAGGACCCCTGGGTGTGTGCACCATGTCCAGACCCAGCCTGACCTGGACCACC
 TGTACTCTCGCCACCGCTCCTCCTTATTCTGGCTGTGCAGGAGACCTCTACCAGGACCCCTCTGCG
 GTTCTGTGAGCAGCCACCACCTCCACCTTCTCCTCTCTGGCCTACCCACCACCTCCTTCTATCCATCC
 CCCAAGCCAGCCACGGACCCAGGTCTTCCCAATGATCCAGACTATCCTGGATTCTTTCCATCTCAGT
 GCCAGAGAGACCTACATGGTACAGCTGGCCAGACCGTAAGCCCTTTCCCTGCCACTGGACACCCTGCG
 GGTGCCCCCTCCACTCACTCCACTCTCTACAATCCGTAACCTTTACCCTGGGGGGCCCAAGTCTGGGGTG
 ACCGGACCCAGGGCCAGTGGAGGACGAGGGACCCCGGCTGCCTGGTAGCAGCTCAGCAGCAGCAGCAG
 CCGCCGCCCGCCCGCTATAACCCACACCACCTGCCACTGCGGCCCACTTCTGAGGCTCGCAAGTACCC
 CAACAGACCCAGCAAGACGCCGGTGCACGAGAGGCCCTACCCGTGCCAGCAGAAGGCTGCGACCCGGCGG
 TTCTCCCGCTCTGACGAGCTGACACGGCACATCCGAATCCACACTGGGCATAAGCCCTCCAGTGTGCGA
 TCTGCATGCGCAACTTCAGCCGCACTGACCACCTCACCACCCATATCCGCACCCACCCGGTGAAGGCC
 CTTGCGCTGTGACTACTGTGGCCGAAAGTTTGCCCGGAGTGATGAGAGGAAGCGCCACACCAAGATCCAC
 CTGAGACAGAAAGAGCGGAAAAGCAGTGCCTCTGCATCGGTGCCAGCCCTCTACAGCCTCTGCT
 CTGGGGCGTGCAGCCTGGGGTACCCTGTGCAGCAGTAAACAGCAGCAGTCTTGGCGGAGGGCCGCTCGC
 CCCTTGTCTCTCGGACCCGGACACCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212183 representing NM_000399
 Red=Cloning site Green=Tags(s)

MMTAKAVDKIPVTLSGFVHQLSDNIYPVEDLAATSVTIFPNAELGGPFDQMNGVAGDGMINIDMTGEKRS
 LDLPYSSSFAPVSAPRNQFTTYMGKFSIDPQYPGASCYPEGIINIIVSAGILQGVTSASTTASSSVTSAS
 PNPLATGPLGVCTMSQTQPDLDHLYSPPPPPPPYSGCAGDLYQDPSAFLSAATTSTSSSLAYPPPPSYPS
 PKPATDPLGPFMIPDYPGFFPSQCQDRLHGTAGPDRKPFPCPLDTRLVPPPLTPLSTIRNFLLGGPSAGV
 TGPASGGSEGPRLPGSSSAAAAAAAAAYNPHHLPLRPILRPRKYPNRPSTKTPVHERPYCPAEGCDDR
 FSRSDDELTRHIRIHTGHKPFQCRICMRNFSRSDHLTTHIRHTGKPFACDYCGRKFARSDERKRHTKIH
 LRQKERKSSAPSASVPAPSTASCSGGVQPGGTLCSNSSLGGGLAPCSSRTRTP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6484_e08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

ACCN:

NM_000399

ORF Size:

1428 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).

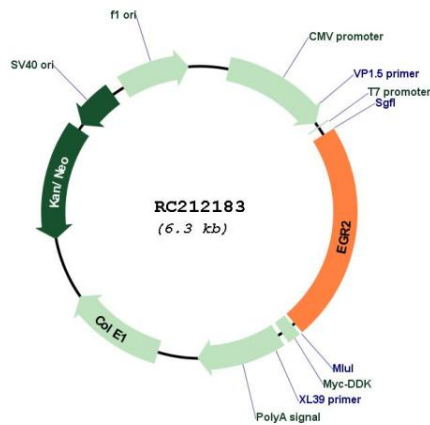
Reconstitution Method:

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.

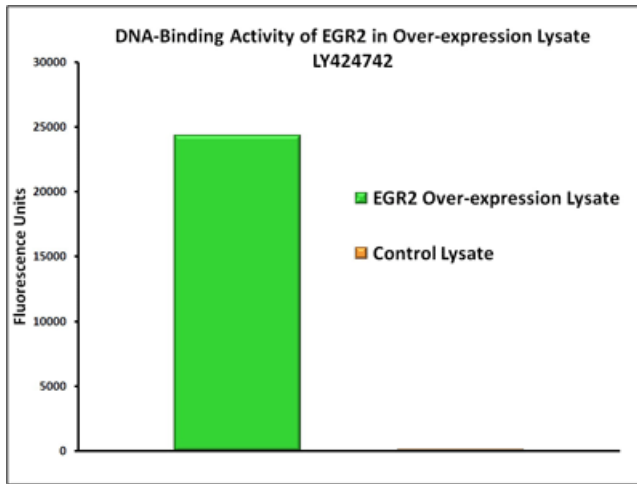
RefSeq: [NM_000399.5](#)
RefSeq Size: 2984 bp
RefSeq ORF: 1431 bp
Locus ID: 1959
UniProt ID: [P11161](#)
Cytogenetics: 10q21.3
Domains: zf-C2H2
Protein Families: Druggable Genome, Transcription Factors
MW: 50.1 kDa

Gene Summary: The protein encoded by this gene is a transcription factor with three tandem C2H2-type zinc fingers. Defects in this gene are associated with Charcot-Marie-Tooth disease type 1D (CMT1D), Charcot-Marie-Tooth disease type 4E (CMT4E), and with Dejerine-Sottas syndrome (DSS). Multiple transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Oct 2008]

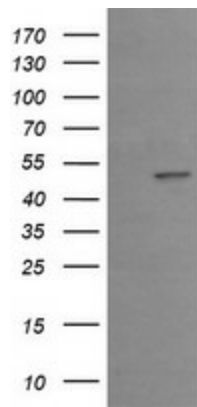
Product images:



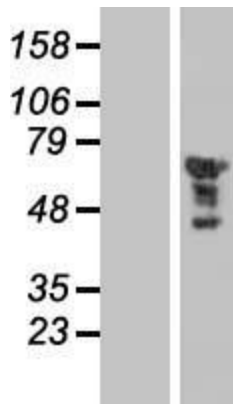
Circular map for RC212183



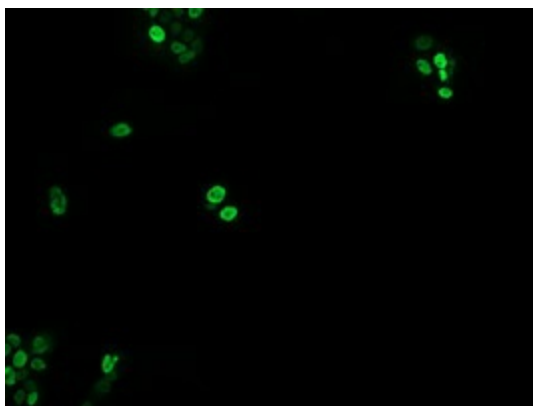
DNA-binding activity of EGR2 was measured in OriGene over-expression lysate [LY424742] and a control lysate. Three microliters of each lysate was tested with a transcription factor binding assay utilizing EGR2-specific DNA sequences. The high level of activity observed in the over-expression lysate compared to the control lysate demonstrates that the expressed EGR2 is biologically active in the lysate. Overexpression cell lysates are prepared from HEK293T cells transfected with RC212183 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY EGR2 (Cat# RC212183, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-EGR2 (Cat# [TA505382]). Positive lysates [LY424742] (100ug) and [LC424742] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY427836]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227351] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Anti-EGR2 mouse monoclonal antibody ([TA505382]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY EGR2 (RC212183).