

Product datasheet for RC202597

c Fos (FOS) (NM_005252) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | c Fos (FOS) (NM_005252) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | FOS |
| Synonyms: | AP-1; C-FOS; p55 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC202597 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGTTCTCGGGCTTCAACGCAGACTACGAGGCGTCATCCTCCCGCTGCAGCAGCGCTCCCCGGCCG
GGGATAGCCTCTTACTACCACTACCCCGCAGACTCCTTCTCCAGCATGGGCTCGCTGTCAACGCGCA
GGACTTCTGCACGGACCTGGCCGTCTCCAGTGCCAACTTCATTCCACGGTCACTGCCATCTCGACCAGT
CCGGACCTGCAGTGGCTGGTGCAGCCCGCCCTCGTCTCCTCTGTGGCCCATCGCAGACCAGAGCCCTC
ACCCTTTCGGAGTCCCCGCCCTCCGCTGGGGCTTACTCCAGGGCTGGCGTTGTGAAGACCATGACAGG
AGGCCGAGCGCAGAGCATTGGCAGGAGGGCAAGGTGGAACAGTTATCTCCAGAAGAAGAAGAGAAAAGG
AGAATCCGAAGGAAAGGAATAAGATGGCTGCAGCCAAATGCCGCAACCGGAGGAGGAGCTGACTGATA
CACTCCAAGCGGAGACAGACCAACTAGAAGATGAGAAGTCTGCTTTCAGACCGAGATTGCCAACCTGCT
GAAGGAGAAGGAAAACTAGAGTTCATCCTGCCAGCTCACCGACCTGCCTGCAAGATCCCTGATGACCTG
GGCTTCCCAGAAGAGATGTCTGTGGCTTCCCTTGATCTGACTGGGGCCCTGCCAGAGTTGCCACCCCG
AGTCTGAGGAGGCCTTACCCTGCCTCTCCTCAATGACCCTGAGCCCAAGCCCTCAGTGGAACTGTCAA
GAGCATCAGCAGCATGGAGCTGAAGACCGAGCCCTTTGATGACTTCCTGTTCCAGCATCATCCAGGCC
AGTGGCTCTGAGACAGCCCGCTCCGTGCCAGACATGGACCTATCTGGTCTTATGACAGCAGACTGGG
AGCCTCTGCACAGTGGCTCCCTGGGATGGGGCCCATGGCCACAGAGCTGGAGCCCTGTGCACCTCCGGT
GGTCACCTGTACTCCAGCTGCACTGCTTACACGTCTTCTTCGCTTACCTACCCGAGGCTGACTCC
TCCCCAGCTGTGCAGCTGCCACCGCAAGGGCAGCAGCAATGAGCCTTCTCTGACTCGCTCAGCT
CACCCACGCTGCTGGCCCTG

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202597 protein sequence
 Red=Cloning site Green=Tags(s)

MMFSGFNADYEASSRCCSSASPAGDSL⁺SYHSPADSFSSMGSPVNAQDFCTDLAVSSANFIPTVTAISTS
 PDLQWL VQPALVSSVAPSQTRAPHFPGVPAPSAGAYSRAGVVKMTGGRAQSIGRRGKVEQLSPEEEEKR
 RIRRERNKMAAAKCRNRRRELTDTLQAETDQLEDEKSALQTEIANLLKEKEKLEFILAHRPACKIPDDL
 GFPEEMSVASLDLTGGLPEVATPESEEAF⁺TLPLLNDPEPKPSVEPVKSISSMELKTEPFDDFLFPASSRP
 SGSETARSVPMDLSGSFYAADWEPLHSGSLGMGPMALELEPLCTPVVTCTPSCTAYTSSVFVTYPEADS
 FPSCAAHRKGSSSNEPSSDLS⁺SPDLLAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

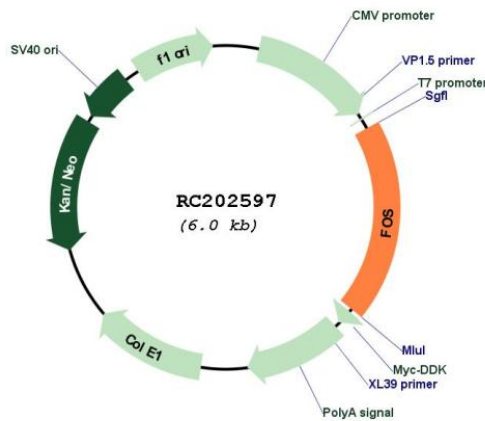
Chromatograms: https://cdn.origene.com/chromatograms/mk6085_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



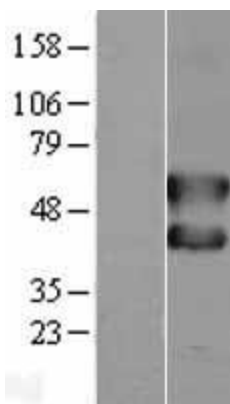
Plasmid Map:



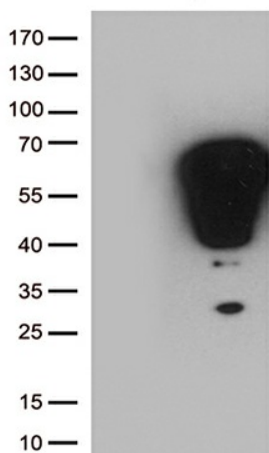
| | |
|-------------------------------|--|
| ACCN: | NM_005252 |
| ORF Size: | 1140 bp |
| OTI Disclaimer: | <p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene 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.</p> <p>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</p> |
| 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: | <ol style="list-style-type: none"> 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_005252.2 , NP_005243.1 |
| RefSeq Size: | 2158 bp |
| RefSeq ORF: | 1143 bp |
| Locus ID: | 2353 |
| UniProt ID: | P01100 |
| Cytogenetics: | 14q24.3 |
| Domains: | BRLZ |
| Protein Families: | Druggable Genome, Transcription Factors |
| Protein Pathways: | B cell receptor signaling pathway, Colorectal cancer, MAPK signaling pathway, Pathways in cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway |
| MW: | 40.7 kDa |

Gene Summary:

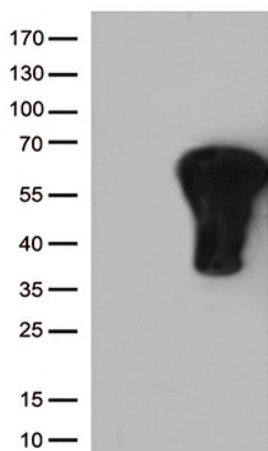
The Fos gene family consists of 4 members: FOS, FOSB, FOSL1, and FOSL2. These genes encode leucine zipper proteins that can dimerize with proteins of the JUN family, thereby forming the transcription factor complex AP-1. As such, the FOS proteins have been implicated as regulators of cell proliferation, differentiation, and transformation. In some cases, expression of the FOS gene has also been associated with apoptotic cell death. [provided by RefSeq, Jul 2008]

Product images:

Western blot validation of overexpression lysate (Cat# [LY401614]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202597 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FOS (Cat# RC202597, 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-FOS (Cat# [TA806977])(1:4000).



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY FOS (RC202597, 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-FOS (1:4000).