

## Product datasheet for **RC230549**

### **MCF2 (NM\_001171878) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MCF2 (NM_001171878) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MCF2
Synonyms:	ARHGEF21; DBL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC230549 representing NM\_001171878  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGAAGCAAATCCCGGAGAGGCAAGATGAGGTTCAAGAAGAAATGCGGCTTCTTCCCTGGGAAC  
 TGCACTTGGTTTTGGTTTTACGTCTACCAGCTTCTTCAACGAACGTTACAGACATTGGATTTGGTT  
 TAGTCAGGAGGATTTTATGCTTAAATTACCAGTTGTTATGCTGAGCTCAGTTAGTGATTTGCTGACATAC  
 ATTGATGACAAGCAATTAACCCCTGAGTTAGGCGGCACCTTGCAGTACTGCCACAGTGAATGGATCATCT  
 TCAGAAATGCTATAGAAAATTTGCCCTCACAGTGAAAGAAATGGCTCAGATGTTACAGTCTTTGGAAC  
 TGAAGTGGCTGAGACAGAACTACCAGATGATATCCCTCAATAGAAGAAATCTGGCAATTCGTGCTGAA  
 AGGTATCATCTGTTGAAGAATGATATTACAGCTGTAACCAAGAAGGAAAAATCTGCTAACAAATCTGG  
 AAGTGCCTGACACTGAAGGAGCTGTCAGTTCAAGACTAGAATGTCATCGGCAATAAGTGGTGACTGGCA  
 AACTATTAATAAGTTGCTGACTCAAGTACATGATATGGAACAGCTTTTGATGGATTTTGGGAAAAACAT  
 CAATTAATAAATGGAGCAGTATCTGCAACTATGGAAGTTTGAGCAGGATTTTCAACAGCTTGTGACTGAAG  
 TTGAATTTCTATTAACCAACAAGCAGAACTGGCTGATGTAACAGGGACTATAGCTCAAGTAAAAACAAA  
 AATAAAAAATTTGAAAACCTTAGATGAAAATTTCTCAGGAGCTATTATCAAAGGCCAGTTTGTGATTA  
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 GTTACCTTTCTGATATTTGGTTAATGAGATAAAAGCAAAACGGATACAACCTCAGCAGGACCTTCAAAT  
 GCATAAATCCTACAGCAGGCTCGTCAATGCTGTGATGAAGGGGAATGCTTCTAGCTAATCAGGAAATA  
 GATAAGTTTCAGTCTAAGAAGATGCTCAGAAAGCTCTCCAAGCATTGAAAATTTTCTTGAATGGCTC  
 TACCCTTTATAAATTATGAACCTGAAACACTGCAGTATGAATTTGATGTAATATTATCCTCTGAGCTTAA  
 GGTTCAAATGAAGACTATAACAACCTCAAGCTTGAACACTTCAAGTATATTTGAGAACCAGCAGGCTGGT  
 TTCAGGAACCTGGCAGATAAGCATGTGAGGCCAATCCAATTTGTGGTACCCACACCTGAAAATTTGGTCA  
 CATCTGGGACACCATTTTTTCTAATAACAAGGGAAGAAGACTTGGAGACAAAATCAGAGCAACTTAAA  
 AATTGAAGTGGTGCCTGATTGTCAGGAGAAGAGAAGTTCTGGTCCATCCTCCAGTTTGGACAATGGCAAT  
 AGCTTGGATGTTTTAAGAACCACGTAATAAAGAACTGATACAGACTGAGAGAGTTTATGTTGAGAAC  
 TGTATACTGTTTTGTTGGTTATAGAGCGGAGATGGATAATCCAGAGATGTTGATCTTATGCCACCTCT  
 CCTGAGAAATAAAAAGGACATTCTTTTGGAAACATGGCAGAAATATATGAATCCATAACGACATTTTC  
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 CCAGTGC AACGAATCACTAAATATCAGTTATTGTTGAAGGAGCTATTAATATAGCAAAGACTGTGAAG  
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 TCAGATTGCAATAAATGGCTATATTGAAAACCTTAAATGAACTGGGCAAGATGATAATGCAAGGTGGATTC  
 AGCGTTTGGATAGGGCACAAGAAAGGTGCTACAAAATGAAGGATTTGGCTAGATTCAAACCAATGCAGC  
 GACACCTTTTCTTGATGAAAAAGCCATTGTTTTTTGAAAAGGCGTGTGAAAGTGGAGAAGGCTCTGA  
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 GGTGATAACCGCAAGTTTGAATCTGGTATGGTGAAGGAAAGAAAGTTTATATTGTCCAGGCTTCTAATG  
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 TAAAAAAGAAAGCAACAGGATCAATTAACAGAACGGGATAAGTTTCAGATTTCTCTTCCAGCAGAAATGAT  
 GAAGACCTGTGTCGGAGATGGCTCTCTATATTGATGAAGCTACTATGTCAAATGGCAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC230549 representing NM\_001171878  
 Red=Cloning site Green=Tags(s)

MAEANPRRGKMRFRNNAASFPGNLHLVLRPTSFLQRTFTDIGFWFSQEDFMLKLPVVMLSSVSDLLTY  
 IDDKQLTPELGGTLQYCHSEWIIFRNAIENFALTVKEMAQMLQSFGTETAETELPDDIPSIEEILAIRAE  
 RYHLLKNDITAVTKEGKILLTNLEVPDTEGAVSSRLECHRQISGDWQTIKLLTQVHDMETAFDGFWEKH  
 QLKMEQYLQLWKFEQDFQQLVTEVEFLLNQQAELADVTGTIAQVKQKIKKLENLDENSQELLSKAQFVIL  
 HGHKLAANHYYALDLICQRCNELRYLSDILVNEIKAKRIQLSRTFKMHKLLQQARQCCEGECLLANQEI  
 DKFQSKEDAQKALQDIENFLEMALPFINYEPETLQYEFVILSPELKVQMKTIQLKLENIRSI FENQQAG  
 FRNLADKHVRPIQFVVPENLVTSGTPFFSSKQGKKTWRQNQSNLKIIEVVPDCQEKRSSGSSSLDNGN  
 SLDVLRKNHVLNELIQTERVYVRELYTVLLGYRAEMDNPEMFDLMPPLLRNKKDILFGNMAEIEYEFHNDIF  
 LSSLENAHAPERVGPCFLERKDDFQMYAKYCQNKPRSETIWRKYSECAFFQECQRKLRHLRLDSYLLK  
 PVQRITKYQLLLKELLYSKDCEGSALLKALDAMLDLLKSVNDSMHQIAINGYIGNLNELGKMIMQGGF  
 SVWIGHKKGATKMKDLARFKPMQRHLFLYEKAI VFCRRVSESGESDRYPSYSFKHCWKMDVEVGITEYVK  
 GDNRFKEIWYGEKEEVYIVQASNVVDMTDLKEIRNILLKQQELLTVKKRKQQDQLTERDKFQISLQOND  
 EDLCRRWLSYIDEATMSNGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg8005\\_h11.zip](https://cdn.origene.com/chromatograms/mg8005_h11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

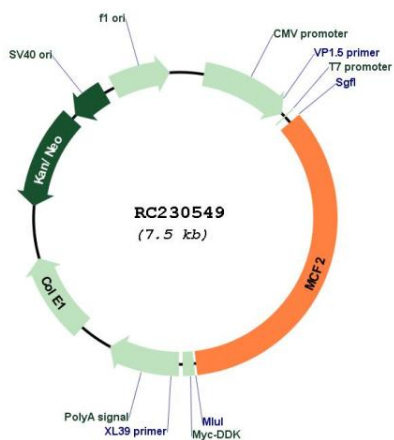
Cloning sites used for ORF Shuttling:



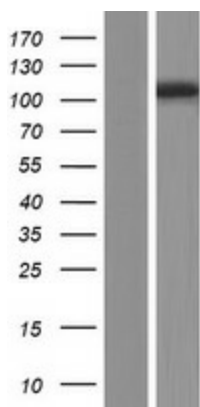
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_001171878
<b>ORF Size:</b>	2580 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001171878.1</a> , <a href="#">NP_001165349.1</a>
<b>RefSeq ORF:</b>	2583 bp
<b>Locus ID:</b>	4168
<b>UniProt ID:</b>	<a href="#">P10911</a>
<b>Cytogenetics:</b>	Xq27.1
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	100.9 kDa
<b>Gene Summary:</b>	The oncogenic protein encoded by this gene is a guanine nucleotide exchange factor (GEF) that exerts control over some members of the Rho family of small GTPases. Several transcript variants encoding different isoforms have been found for this gene. These isoforms exhibit different expression patterns and varying levels of GEF activity.[provided by RefSeq, Jan 2010]

Product images:



Circular map for RC230549



Western blot validation of overexpression lysate (Cat# [LY433549]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230549 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).