

## Product datasheet for **RC201983**

### **RAF1 (NM\_002880) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RAF1 (NM_002880) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAF1
Synonyms:	c-Raf; CMD1NN; CRAF; NS5; Raf-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC201983 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGCACATACAGGGAGCTTGAAGACGATCAGCAATGGTTTTGGATTCAAAGATGCCGTGTTTTGATG  
GCTCCAGCTGCATCTCTCTACAATAGTTCAGCAGTTTGGCTATCAGCGCCGGGCATCAGATGATGGCAA  
ACTCACAGATCCTTCTAAGACAAGCAACTATCCGTGTTTTCTTGCCGAACAAGCAAAGAACAGTGGTC  
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TTTGCTCGGAAGACGTTCTGAAGCTTGCCTTCTGTGACATCTGTCAGAAATTCCTGCTCAATGGATTTCT  
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GAGTAACATCAGACAACCTTATTGTTTCAAATTCCTACTATTGGTGATAGTGGAGTCCCAGCACTACCT  
TCTTTGACTATGGCTCGTATGCGAGAGTCTGTTCCAGGATGCCTGTAGTTCACGACAGATATTCTA  
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ATTGTATGAACTGATGACGGGGAGCTTCTTATTCTCACATCAACAACCGAGATCAGATCATCTTCATG  
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TGGTAGCTGACTGTGTGAAGAAAGTAAAGGAAGAGAGGCCTCTTTTCCCAGATCCTGTCTCCATTGA  
GCTGCTCAACACTCTCTACCGAAGATCAACCGGAGCGCTTCCGAGCCATCCTTGATCGGGCAGCCAC  
ACTGAGGATATCAATGCTTGACGCTGACCACGTCCCCGAGGCTGCCTGTCTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC201983 protein sequence  
Red=Cloning site Green=Tags(s)

```
MEHIQGAWKTISNGFGFKDAVFDGSSCISPTIVQQFGYQRRASDDGKLTDP SKTSNTIRVFLPNKQRTVV
NVRNGMSLHDCLMKALKVRGLQPECCAVFRLLEHEHGKKARLDWNTDAASLIGEELQVDFLDHVPLTTHN
FARKTFLKLAFCDICQKFLNNGFRQCQGYKFHEHCSTKVPTMCVDWSNIRQLLLFPNSTIGDSGVPALP
SLTMRMRRESVSRMPVSSQHRYSTPHAFTFNTSSPSSEGLSQQRSTSTPNVHVMVSTTLPVDSRMIEDA
IRSHSESASPSALSSSPNNLSPTGWSQPKTPVPAQRERAPVSGTQEKNKIRPRGQRDSSYYWEIEASEVM
LSTRIGSGSGFTVYKKGKWHGDVAVKILKVVDPTEQFQAFRNEVAVLRKTRHVNILLFMGYMTKDNLAIV
TQWCEGSSLYKHLHVQETKQMFQLIDIARQTAQGM DYLHAKNIIHRDMKSNNIFLHEGLTVKIGDFGLA
TVKSRWSGSQQVEQPTGSVLWMAPEVIRMQDN NPF SFQSDVYSYGIVLYELMTGELPYSHINNRDQIIFM
VGRGYASPDL SKLYKNCPKAMKRLVADCVKVKKEERPLFPQILSSI ELLQHSLPKINRSASEPSLHRAAH
TEDINACTLTTSPRLPVF
```

TRTRPLEQKLISEEDLANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6281\\_d07.zip](https://cdn.origene.com/chromatograms/mk6281_d07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002880

**ORF Size:** 1944 bp

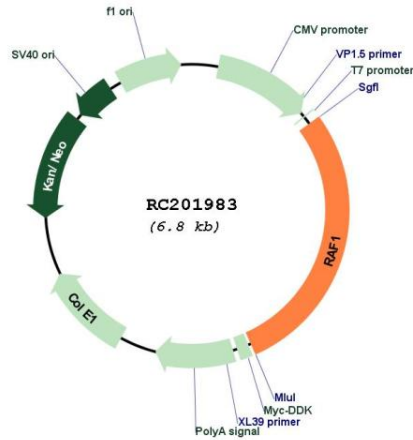
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

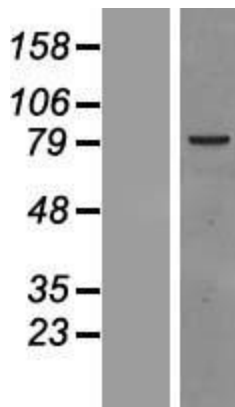
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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_002880.4</a>
<b>RefSeq Size:</b>	3291 bp
<b>RefSeq ORF:</b>	1947 bp
<b>Locus ID:</b>	5894
<b>UniProt ID:</b>	<a href="#">P04049</a>
<b>Cytogenetics:</b>	3p25.2
<b>Domains:</b>	kinase, TyrKc, DAG_PE-bind, S_TKc, RBD
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Acute myeloid leukemia, B cell receptor signaling pathway, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, Vascular smooth muscle contraction, VEGF signaling pathway
<b>MW:</b>	73.1 kDa
<b>Gene Summary:</b>	<p>This gene is the cellular homolog of viral raf gene (v-raf). The encoded protein is a MAP kinase kinase kinase (MAP3K), which functions downstream of the Ras family of membrane associated GTPases to which it binds directly. Once activated, the cellular RAF1 protein can phosphorylate to activate the dual specificity protein kinases MEK1 and MEK2, which in turn phosphorylate to activate the serine/threonine specific protein kinases, ERK1 and ERK2. Activated ERKs are pleiotropic effectors of cell physiology and play an important role in the control of gene expression involved in the cell division cycle, apoptosis, cell differentiation and cell migration. Mutations in this gene are associated with Noonan syndrome 5 and LEOPARD syndrome 2. [provided by RefSeq, Jul 2008]</p>

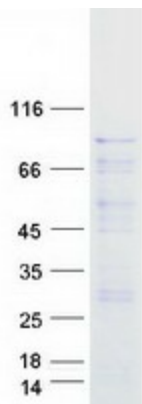
Product images:



Circular map for RC201983



Western blot validation of overexpression lysate (Cat# [LY419048]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201983 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAF1 protein (Cat# [TP301983]). The protein was produced from HEK293T cells transfected with RAF1 cDNA clone (Cat# RC201983) using MegaTran 2.0 (Cat# [TT210002]).