

Product datasheet for **RC402670**

RAF1 (NM_002880) Human Mutant ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Mutant ORF Clones |
| Product Name: | RAF1 (NM_002880) Human Mutant ORF Clone |
| Mutation Description: | I448v |
| Affected Codon#: | 448 |
| Affected NT#: | 1342 |
| Nucleotide Mutation: | RAF1 Mutant (I448v), Myc-DDK-tagged ORF clone of Homo sapiens v-raf-1 murine leukemia viral oncogene homolog 1 (RAF1) as transfection-ready |
| Effect: | Acute myeloid leukaemia |
| Symbol: | RAF1 |
| Synonyms: | c-Raf; CMD1NN; CRAF; NS5; Raf-1 |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| Tag: | Myc-DDK |
| ACCN: | NM_002880 |
| ORF Size: | 1944 bp |
| Restriction Sites: | Sgfi-Mlul |



[View online »](#)

ORF Nucleotide
Sequence:

>RC402670 representing NM_002880
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCACATACAGGGAGCTTGAAGACGATCAGCAATGGTTTTGGATTCAAAGATGCCGTGTTTTGATG
GCTCCAGCTGCATCTCTCCTACAATAGTTCAGCAGTTTGGCTATCAGCGCCGGGCATCAGATGATGGCAA
ACTCACAGATCCTTCTAAGACAAGCAACTATCCGTGTTTTCTTGCCGAACAAGCAAAGAACAGTGGTC
AATGTGCGAAATGGAATGAGCTTGCATGACTGCCTTATGAAAGCACTCAAGGTGAGGGGCTGCAACCAG
AGTGTGTGCAGTGTTCAGACTTCTCCACGAACACAAAGGTAAGGCAAGCAGCTTAGATTGGAATACTGA
TGCTGCGTCTTTGATTGGAGAAGAATTCAAGTAGATTTCTGGATCATGTTCCCTCACAACACACAAC
TTTGCTCGAAGACGTTCTGAAGCTTGCCTTCTGTGACATCTGTGAGAAATTCCTGCTCAATGGATTTCT
GATGTCAGACTTGTGGCTACAAATTTTCATGAGCACTGTAGCACAAAGTACCTACTATGTGTGTGGACTG
GAGTAACATCAGACAACCTTATTGTTTCCAAATTCCTACTTGGTGATAGTGGAGTCCCAGCACTACCT
TCTTTGACTATGCGTCGTATGCGAGAGTCTGTTTCCAGGATGCCTGTTAGTTCTCAGCACAGATATTCTA
CACCTCAGCCTTACCTTTAACACCTCCAGTCCCTCATCTGAAGGTTCCCTCTCCAGAGGCAGAGGTC
GACATCCACACCTAATGTCCACATGGTCAGCACCACCCTGCCTGTGGACAGCAGGATGATTGAGGATGCA
ATTCGAAGTCACAGCGAATCAGCCTCACCTTCCAGCCTGTCCAGTAGCCCCAACAACTGAGCCCAACAG
GCTGGTCACAGCCGAAACCCCGTGCCAGCACAAAGAGAGCGGGCACCAGTATCTGGGACCCAGGAGAA
AAACAAAATTAGGCCTCGTGGACAGAGATTCAGCTATTATTGGGAAATAGAAGCCAGTGAAGTGATG
CTGTCCACTCGGATTGGGTGAGGCTCTTTTGGAACTGTTTATAAGGGTAAATGGCACGGAGATGTTGCAG
TAAAGATCCTAAAGTTGTGACCCCAACCCAGAGCAATTCAGGCCTTCAGGAATGAGGTGGCTGTTCT
GCGCAAAAACAGGCATGTGAACATTCTGCTTTTCATGGGGTACATGACAAAGGACAACCTGGCAATTGTG
ACCCAGTGGTGCAGGGCAGCAGCCTCTACAAACACCTGCATGTCCAGGAGACCAAGTTTCAGATGTTCC
AGCTAATTGACGTTGCCCGCAGACGGCTCAGGGAATGGACTATTTGCATGCAAAGAACATCATCCATAG
AGACATGAAATCCAACAATATATTTCTCCATGAAGGCTTAACAGTGAAAATTGGAGATTTTGGTTTGGCA
ACAGTAAAGTCACGCTGGAGTGGTTCTCAGCAGGTTGAACAACCTACTGGCTCTGTCTCTGGATGGCC
CAGAGGTGATCCGAATGCAGGATAACAACCCATTCAGTTTCCAGTCGGATGTCTACTCCTATGGCATCGT
ATTGTATGAACTGATGACGGGGAGCTTCTTATTCTCACATCAACAACCGAGATCAGATCATCTTCATG
GTGGCCGAGGATATGCCTCCCAGATCTTAGTAAGCTATATAAGAACTGCCCCAAGCAATGAAGAGGC
TGGTAGCTGACTGTGAAGAAAGTAAAGGAAGAGAGGCTCTTTTTCCCAGATCCTGTCTTCCATTGA
GCTGCTCAACTCTCTACCGAAGATCAACCGGAGCGCTTCCGAGCCATCCTTGCATCGGGCAGCCAC
ACTGAGGATATCAATGCTTGACGCTGACCACGTCCCCGAGGCTGCCTGTCTTC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC402670 representing NM_002880
 Red=Cloning site Green=Tags(s)

MEHIQGAWKTI SNGFGFKDAVFDGSSCISPTIVQQFGYQRRASDDGKLTDP SKTSNTIRVFLPNKQRTVV
 NVRNGMSLHDCLMKALKVRGLQPECCAVFRLLHEHKGKKARLDWNTDAASLIGEELQVDFLDHVPLTTHN
 FARKTFLKLAFCDICQKFLNLFRCQTCGYKFHEHCSTKVPTMCVDWSNIRQLLLFPNSTIGDSGVPALP
 SLTMRMRRESVSRMPVSSQHRYSTPHAFTFNTSSPSSEGLSQRQRSTSTPNVHMVSTTLPVDSRMIEDA
 IRSHSESASPSALS SSPNNLSPTGWSQPKTPVPAQRERAPVSGTQEKNI RPRGQRDSSYYWEIEASEVM
 LSTRIGSGSFGTVYKKGWHGDVAVKILKVVDP TPEQFQAFRNEVAVLRKRTRHVNI LLFMGYMTKDNLAIV
 TQWCEGSSLYKHLHVQETKQMFQLIDVARQTAQGM DYLHAKNIIHRDMKSNINFLHEGLTVKIGDFGLA
 TVKSRWGSQQVEQPTGSVLWMAPEVIRMQDNNPFSFQSDVYSYGI VLYELMTGELPYSHINNRDQIIFM
 VGRGYASPDLSKLYKNCPKAMKRLVADCVKVKKEERPLFPQILSSI ELLQHSLPKINRSASEPSLHRAAH
 TEDINACTLTTSPRLPVF

SGP TRRRLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



| | |
|--------------------------|---|
| 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). |
| RefSeq: | NP_002871 |
| RefSeq Size: | 1944 bp |
| RefSeq ORF: | 1947 bp |
| Locus ID: | 5894 |
| Cytogenetics: | 3p25.2 |
| Domains: | pkinase, TyrKc, DAG_PE-bind, S_TKc, RBD |
| Protein Families: | Druggable Genome, Protein Kinase |
| Protein Pathways: | 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 |
| MW: | 71.3 kDa |
| Gene Summary: | 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] |