OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC201162

Raf1 (NM_029780) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Raf1 (NM_029780) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Raf1
Synonyms:	6430402F14Rik; AA990557; BB129353; c-Raf; Craf1; D830050J10Rik; Raf-1; v-Raf
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>BC015273 sequence for NM_029780
CCCACGCGTCCGCCGCCATCTTGGATGGCGGGAGTTAGAGCCGAGCGGACTTGAGGCGGGAAGGCTTCTC
TGTTGTTCTCCGCAGGCCCTCGGACGGGCCAGCTGGCCGAGCTTTGGGGCGCGTGCCCTGAGGCGCGGGG
CGCTAGTGCAGCGATGCGGGGCCTCCCCGGGGCCCCGTCCCCCGGGCTGGGGACACGCCGAATGTGACCG
CAACCAACGCGTTCTCTCAACCACCGCTGCCGCTGCACGACGGGACCCGGCACTGCCCGGCTCCCTCAGG
TATAAGTATTGTTTAAACTGCATCAATGGAGCACATACAGGGAGCTTGGAAGACGATCAGCAATGGCTTT
GGACTCAAAGATGCGGTGTTTGATGGCTCCAGCTGCATCTCCCCTACCATTGTTCAGCAGTTTGGCTATC
AGCGCCGGGCCTCAGATGATGGCAAGCTCACGGATTCTTCTAAGACAAGCAATACTATCCGGGTTTTCTT
GCCGAATAAGCAAAGGACTGTGGTCAATGTGCGGAATGGAATGAGCTTACATGACTGCCTTATGAAAGCT
CTGAAGGTGAGAGGCCTGCAGCCAGAGTGCTGTGCAGTGTTCAGACTTCTCCAGGAACACAAAGGTAAGA
AAGCACGCTTAGATTGGAACACCGATGCCGCCTCTCTGATTGGAGAAGAACTGCAAGTGGATTTTTTGGA
TCATGTTCCACTCACAACTCACAACTTTGCTCGGAAAACGTTCCTGAAGCTTGCATTCTGTGACATCTGT
CAGAAGTTCCTGCTAAATGGATTTCGATGTCAGACTTGTGGCTACAAGTTTCATGAGCACTGTAGCACCA
AAGTACCTACTATGTGTGTGGACTGGAGTAATATCAGACAGCTCTTGCTGTTTCCAAATTCCACTGTTGG
TGACAGTGGAGTCCCAGCACCACCTTCTTTCCCAATGCGTCGGATGCGAGAATCTGTTTCCCGGATGCCT
GCTAGTTCCCAGCACAGATACTCTACACCCCATGCCTTCACTTTCAACACCTCCAGCCCTTCCTCAGAAG
GTTCCCTGTCCCAGAGGCAGAGGTCAACGTCCACTCCCAATGTCCACATGGTCAGCACCACCCTGCATGT
GGACAGCAGGATGATTGAGGATGCAATTCGAAGTCACAGTGAATCAGCCTCACCTTCAGCCCTGTCCAGC
AGCCCAAACAACCTGAGTCCAACAGGCTGGTCACAGCCCAAAACCCCTGTGCCAGCACAAAGAGAGCGGG
CACCAGGATCTGGGACCCAGGAAAAAAACAAAATTAGGCCTCGTGGGCAGAGAGACTCGAGTTATTACTG
GGAAATAGAAGCCAGTGAGGTGATGCTGTCTACTCGGATCGGGTCAGGTTCCTTTGGCACTGTGTACAAG
GGCAAGTGGCATGGAGATGTTGCAGTAAAGATCCTAAAGGTGGTTGACCCAACTCCAGAGCAACTTCAGG
CCTTCAGGAACGAGGTGGCTGTTTTGCGCAAAACACGGCATGTTAACATCCTGCTGTTCATGGGGTACAT
GACAAAGGACAACCTGGCGATTGTGACTCAGTGGTGTGAAGGCAGCAGTCTCTACAAACACCTGCATGTC
CAGGAGACCAAATTCCAGATGTTCCAGCTAATTGACATTGCCCGACAGACAGCTCAGGGAATGGACTATT
TGCATGCAAAGAACATCATCCACAGAGACATGAAATCCAACAATATATTTCTCCATGAAGGCCTCACGGT
GAAAATTGGAGATTTTGGTTTGGCAACAGTGAAGTCACGCTGGAGTGGTTCTCAGCAGGTTGAACAGCCC
ACTGGCTCTGTGCTGTGGATGGCCCCAGAAGTAATCCGGATGCAGGATGACAACCCGTTCAGCTTCCAGT
CCGACGTGTACTCGTACGGCATCGTGCTGTACGAGCTGATGGCTGGGGAGCTTCCCTACGCCCACATCAA
CAACCGAGACCAGATCATCTTCATGGTAGGCCGTGGGTATGCATCCCCTGATCTCAGCAGGCTCTACAAG
AACTGCCCCAAGGCAATGAAGAGGTTGGTGGCTGACTGTGTGAAGAAAGTCAAAGAAGAGAGACCTTTGT
TTCCCCAGATCCTGTCTTCCATCGAGCTGCTTCAGCACTCTCTGCCGAAAATCAACAGGAGCGCCTCTGA
GCCTTCCCTGCATCGGGCAGCTCACACTGAGGACATCAATGCTTGCACGCTGACTACATCCCCAAGGCTA
CCAGTCTTCTAGCTGATGATGTAGCTGTTCTTAGGCCACCAGGGGACGAAGAAGAGTCAGCAGGCACCAC
TTTCTGTTTCCTTGGGGGCAGAATGCATGTTTTTGGAAAAGCTGCTGCTGCTAAGGACCTAGACTACTCA
CAGGGCCTTAACTTCATATTGCCTTCTTTTCTACCCCTCCTGCCCTGGAAATGGAAGCTGTCCACCAAGA
AAGCCTGCTCAGCTCCAGAGGTATACAAGTCAGCTGAGTATTTGTAGGGCAAGTGGCCTTGGAGAAGGTA
GGGCACTCCGGCTGCTGCAGGGACATGCAATTGGGAACTTGGCTCCTTGAGCCTATATGGACAGTGGTGC
AGTGCCAGTTTTGCACATGGAGTCCTGGCCACCTGGGGGAGCCTGCTTTGGTACTACAGAACTTTGTGGA
CAAACTGTGTCTAAGGTGTCCTGTGTGGATGGCTTTCCAAGCGCGGTGCTCCACCTTTGGCAGCCTCCCA
CGTGCTGAATCTGTCTTCCAGGAGCTGCCCCTATGGGGTGGGCCGCGGCCCAACCCTATCTGTAGCCACA
TCCTTGTCTGTAAGAAAGCCAGGAATACAGGTTTTCTTAATGATTTTGGGTTTTAATTTTGTTTTTATTG
AGCCAATACAGTTGGTTCCTTATGTTATTTTAATAAAATAAATTAAATTTAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_029780

Insert Size: 1947 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	BC015273, AAH15273
RefSeq Size:	2935 bp
RefSeq ORF:	1947 bp
Locus ID:	110157
UniProt ID:	Q99N57
Cytogenetics:	6 53.62 cM
Gene Summary:	Serine/threonine-protein kinase that acts as a regulatory link between the membrane-associated Ras GTPases and the MAPK/ERK cascade, and this critical regulatory link functions as a switch determining cell fate decisions including proliferation, differentiation, apoptosis, survival and oncogenic transformation. RAF1 activation initiates a mitogen-activated protein kinase (MAPK) cascade that comprises a sequential phosphorylation of the dual-specific MAPK kinases (MAP2K1/MEK1 and MAP2K2/MEK2) and the extracellular signal-regulated kinases (MAPK3/ERK1 and MAPK1/ERK2). The phosphorylated form of RAF1 (on residues Ser-338 and Ser-339, by PAK1) phosphorylates BAD/Bcl2-antagonist of cell death at 'Ser-75'. Phosphorylates adenylyl cyclases: ADCY2, ADCY5 and ADCY6, resulting in their activation. Phosphorylates PPP1R12A resulting in inhibition of the phosphatase activity. Phosphorylates TNNT2/cardiac muscle troponin T. Can promote NF-kB activation and inhibit signal transducers involved in motility (ROCK2), apoptosis (MAP3K5/ASK1 and STK3/MST2), proliferation and angiogenesis (RB1). Can protect cells from apoptosis also by translocating to the mitochondria where it binds BCL2 and displaces BAD/Bcl2-antagonist of cell death. Plays a role in the oncogenic transformation of epithelial cells via repression of the TJ protein, occludin (OCLN) by inducing the up-regulation of a transcriptional repressor SNAI2/SLUG, which induces down-regulation of OCLN. Restricts caspase activation in response to selected stimuli, notably Fas stimulation, pathogen-mediated macrophage apoptosis, and erythroid differentiation (By similarity). Regulates Rho signaling and migration, and is required for normal wound healing.[UniProtKB/Swiss-Prot Function]