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Product datasheet for RC211013

B Raf (BRAF) (NM_004333) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	B Raf (BRAF) (NM_004333) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BRAF
Synonyms:	B-raf; B-RAF1; BRAF1; NS7; RAFB1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC211013 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGCTGAGCGGTGGCGGTGGTGGCGGCGCGGAGCCGGGCCAGGCTCTGTTCAACGGGGACATGG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence:

>RC211013 protein sequence
Red=Cloning site Green=Tags(s)

MAALSGGGGGGAEPGQALFNGDMEPEAGAGAGAAASSAADPAIPEEVWNIKQMIKLTQEHIEALLDKFGG
EHNPPSIYLEAYEEYTSKLDALQQREQQLLESLGNGTDFSVSSSASMDTVTSSSSSSLSVLPSSLSVFQN
PTDVARSNPKSPQKPIVRVFLPNKQRTVVPARCGVTVRDSLKKALMMRGLIPECCAVYRIQDGEKKPIGW
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TPQQLQAFKNEVGVLRKTRHVNILLFMGYSTKPQLAIVTQWCEGSSLYHHLHIIETKFEMIKLIDIARQT
AQGMDYLHAKSIIHRDLKSNNIFLHEDLTVKIGDFGLATVKSRWSGSHQFEQLSGSILWMAPEVIRMQDK
NPYSFQSDVYAFGIVLYELMTGQLPYSNINNRDQIIFMVGRGYLSPDLSKVRSNCPKAMKRLMAECLKKK
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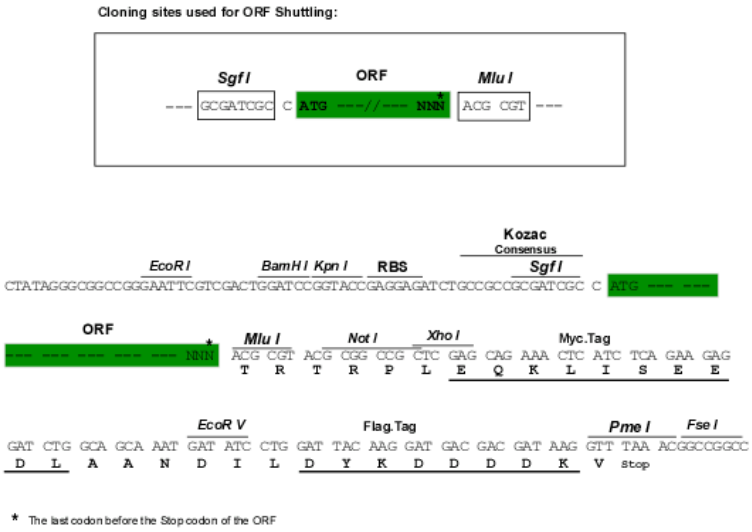
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6139_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



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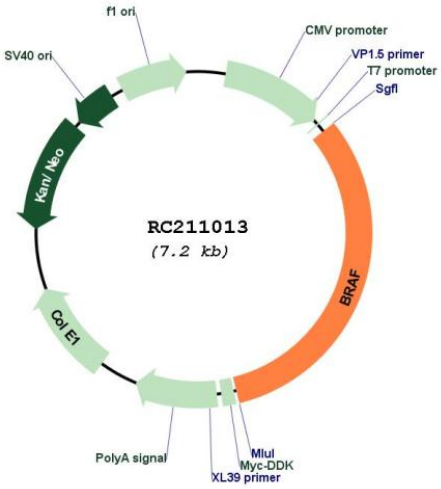
Plasmid Map:



ACCN:	NM_004333
ORF Size:	2298 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.
RefSeq:	NM_004333.1, NM_004333.2, NM_004333.3, NM_004333.4, NM_004333.6, NP_004324.2
RefSeq Size:	2949 bp
RefSeq ORF:	2301 bp
Locus ID:	673
Domains:	pkinase, TyrKc, DAG_PE-bind, S_TKc, RBD
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Acute myeloid leukemia, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Focal adhesion, Glioma, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanoma, mTOR signaling pathway, 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, Thyroid cancer, Vascular smooth muscle contraction

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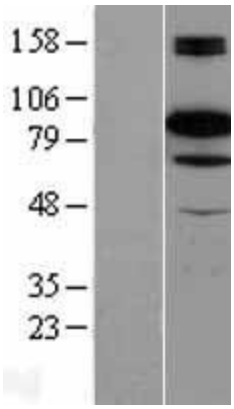
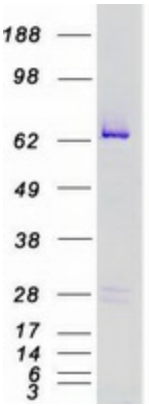
MW: 84.4 kDa

Gene Summary: This gene encodes a protein belonging to the RAF family of serine/threonine protein kinases. This protein plays a role in regulating the MAP kinase/ERK signaling pathway, which affects cell division, differentiation, and secretion. Mutations in this gene, most commonly the V600E mutation, are the most frequently identified cancer-causing mutations in melanoma, and have been identified in various other cancers as well, including non-Hodgkin lymphoma, colorectal cancer, thyroid carcinoma, non-small cell lung carcinoma, hairy cell leukemia and adenocarcinoma of lung. Mutations in this gene are also associated with cardiofaciocutaneous, Noonan, and Costello syndromes, which exhibit overlapping phenotypes. A pseudogene of this gene has been identified on the X chromosome. [provided by RefSeq, Aug 2017]

Product images:



Western blot validation of overexpression lysate (Cat# [LY401382]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211013 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BRAF protein (Cat# [TP311013]). The protein was produced from HEK293T cells transfected with BRAF cDNA clone (Cat# RC211013) using MegaTran 2.0 (Cat# [TT210002]).

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