

Product datasheet for **RC222697**

KRAS (NM_033360) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KRAS (NM_033360) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KRAS
Synonyms:	C-K-RAS; c-Ki-ras2; CFC2; K-Ras; K-RAS2A; K-RAS2B; K-RAS4A; K-RAS4B; KI-RAS; KRAS1; KRAS2; NS; NS3; RALD; RASK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222697 representing NM_033360 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGACTGAATATAAACTTGTGGTAGTTGGAGCTGGTGGCGTAGGCAAGAGTGCCTTGACGATACAGCTAA
TTCAGAATCATTTTGTGGACGAATATGATCCAACAATAGAGGATTCCTACAGGAAGCAAGTAGTAATTGA
TGGAGAAACCTGTCTCTTGGATATTCTCGACACAGCAGGTCAAGAGGAGTACAGTGCAATGAGGGACCAG
TACATGAGGACTGGGGAGGGCTTTCTTTGTGATTTGCCATAAATAACTAAATCATTTGAAGATATTC
ACCATTATAGAGAACAAATTAAGAGTAAAGGACTCTGAAGATGTACCTATGGTCCTAGTAGGAAATAA
ATGTGATTTGCCTTCTAGAACAGTAGACACAAAACAGGCTCAGGACTTAGCAAGAAGTTATGGAATTCCT
TTTATTGAAACATCAGCAAAGACAAGACAGAGAGTGGAGGATGCTTTTTATACATTGGTGAGAGAGATCC
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TATAATG

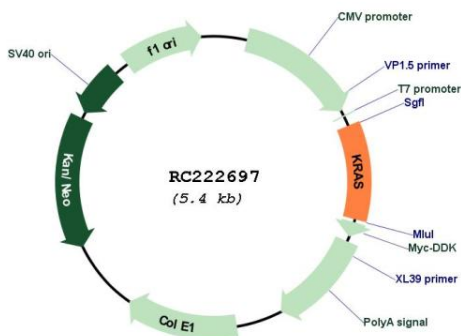
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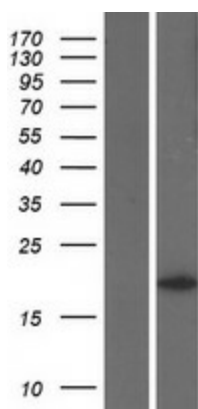
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Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_033360.4
RefSeq Size:	5436 bp
RefSeq ORF:	570 bp
Locus ID:	3845
UniProt ID:	P01116
Cytogenetics:	12p12.1
Domains:	ras, RAN, RAS, RHO, RAB
Protein Families:	Druggable Genome
Protein Pathways:	Acute myeloid leukemia, Axon guidance, B cell receptor signaling pathway, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Dorso-ventral axis formation, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, 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, Thyroid cancer, Tight junction, VEGF signaling pathway
MW:	21.5 kDa
Gene Summary:	This gene, a Kirsten ras oncogene homolog from the mammalian ras gene family, encodes a protein that is a member of the small GTPase superfamily. A single amino acid substitution is responsible for an activating mutation. The transforming protein that results is implicated in various malignancies, including lung adenocarcinoma, mucinous adenoma, ductal carcinoma of the pancreas and colorectal carcinoma. Alternative splicing leads to variants encoding two isoforms that differ in the C-terminal region. [provided by RefSeq, Jul 2008]

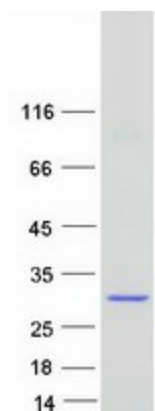
Product images:



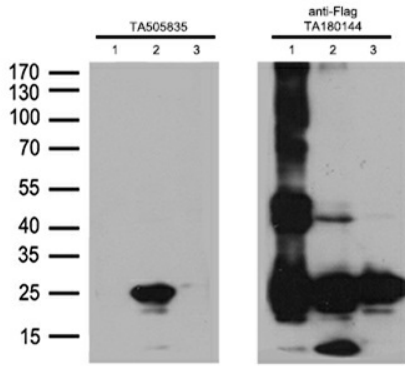
Circular map for RC222697



Western blot validation of overexpression lysate (Cat# [LY409579]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222697 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

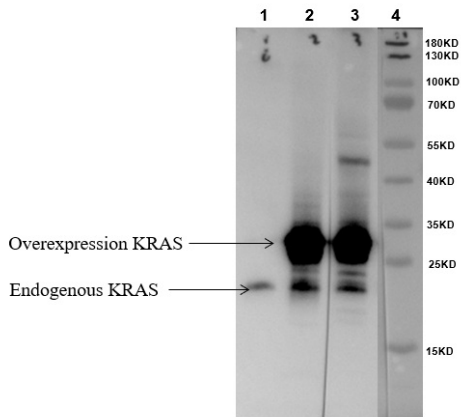


Coomassie blue staining of purified KRAS protein (Cat# [TP322697]). The protein was produced from HEK293T cells transfected with KRAS cDNA clone (Cat# RC222697) using MegaTran 2.0 (Cat# [TT210002]).



Western blot analysis of anti-NRAS monoclonal antibody, TA505835.
 Incubation: 1:500, 1h.
 1: lysate of 293T transfected with HRAS plasmid, RC225202
 2: lysate of 293T transfected with NRAS plasmid, RC202681
 3: lysate of 293T transfected with KRAS plasmid, RC222697

HEK293T cells were transfected with the 3 different overexpression plasmids (1:HRAS, Cat# [RC225202];2: NRAS, Cat# [RC202681]; 3:KRAS, Cat# RC222697) for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-flag antibody (Cat# [TA180144], 1:1000) or anti-NRAS mouse monoclonal antibody (Cat# [TA505835], 1:500).



Western blot analysis of overexpressed lysates (25ug per lane) from HEK293T cells transfected with empty plasmid ([PS100001], lane 1) , human KRAS variant a plasmid (RC222697, lane 2), human KRAS variant b plasmid ([RC201958], lane 3) using anti-KRAS antibody [TA801672] (1:500). DNA ladder (lane 4).