

Product datasheet for **RR213421**

Ficd (NM_001010946) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ficd (NM_001010946) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Ficd
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR213421 representing NM_001010946
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATACTCATGCCGATGGCGTCAGTGGTGGCAGTGGCTGAACCCAAATGGGTCTCAGTCTGGGGCCGT
TCCTGTGGATGACACTGCTGAGCATGGCTCTGGGGTCACTGGCCCTGCTGCCACTGGGAGCTGT
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GTGGTCAACCAAGTGCACCAAGCCATCTACGGAGCTCAGTGTACCTCCAGGGACGCAGGGCTGCTGACGG
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AGAGTACTACCATGTGCTGGAAGTCGCCAACGAGGGTACCGTGGCCATTTCATCCGCTTCATAGCCAAG
TGTACGGAAGTCACTGGACACATTGCTCCTCGCCACCACCGAGTACTGTCAGCACTGCCAGAAGCCC
AGCCCAACCACTCTGGGTTCAAGGAGACTTCTGTGAGGCCT

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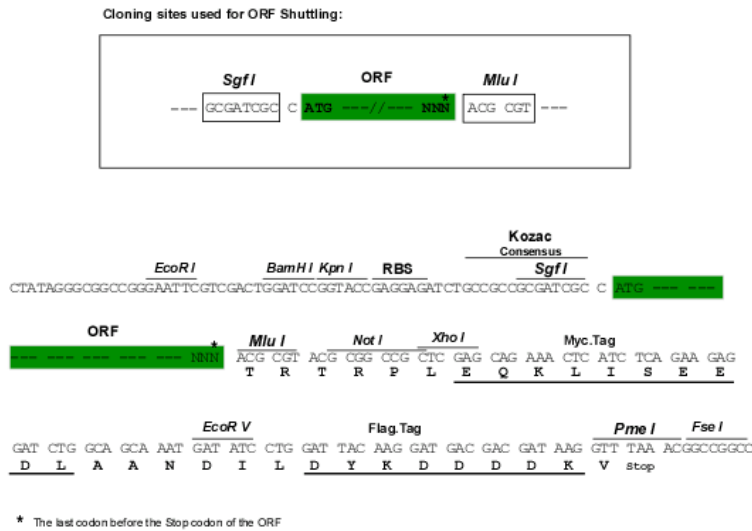
Protein Sequence: >RR213421 representing NM_001010946
 Red=Cloning site Green=Tags(s)

MILMPMASVVVAEPKWVSVWGRFLWMTLLSMALGSLALLLPLGAVEEQCLAVLRGFHLLRSKLDRAQH
 VVTKCTSPSTELSVTSRDAGLLTVKTKASPAGKLEAKAALNQALEMKRQKRGKAHKLFLHALKMDPGFV
 DALNELGIFSEEDKDIIQADYLYTRAL TISPFHEKALINRDRTLPLVEEIDQRYF SVLDSKVRKVM SIPK
 GSSALRRVMEETYHHIYHTVAIEGNTLTLAEIRHILETRYAVPGKSLEEQNEVIGMHAAMKYINSTLVS
 RIGSVTIDHMLEIHRRLVGYVDPVEAGFRRTQVLVGHHPHPRDVEKQMQEF TQWLNSE DAMNLHPVE
 FAALAHYKLVYIHPFIDGNGRSRLMLNLMQAGYPPITIRKEQRSEYHVLEVANEGDVRPFIRFIAK
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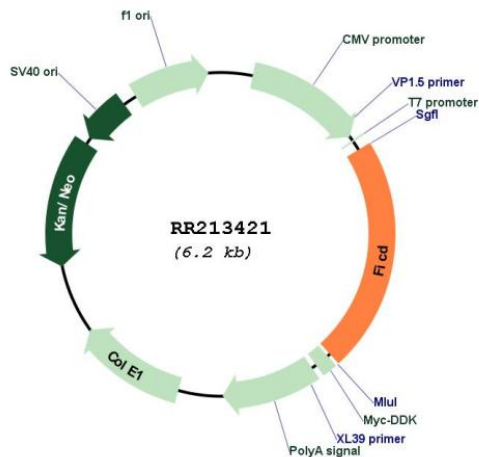
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001010946
ORF Size:	1374 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).
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.
RefSeq:	NM_001010946.1 , NP_001010946.1
RefSeq Size:	1965 bp
RefSeq ORF:	1377 bp
Locus ID:	288741
UniProt ID:	Q6AY47
Cytogenetics:	12q16
MW:	51.8 kDa
Gene Summary:	Protein that can both mediate the addition of adenosine 5'-monophosphate (AMP) to specific residues of target proteins (AMPylation), and the removal of the same modification from target proteins (de-AMPylation), depending on the context (By similarity). The side chain of Glu-231 determines which of the two opposing activities (AMPylase or de-AMPylase) will take place (By similarity). Acts as a key regulator of the ERN1/IRE1-mediated unfolded protein response (UPR) by mediating AMPylation or de-AMPylation of HSPA5/BiP (By similarity). In unstressed cells, acts as an adenylyltransferase by mediating AMPylation of HSPA5/BiP at 'Thr-518', thereby inactivating it (By similarity). In response to endoplasmic reticulum stress, acts as a phosphodiesterase by mediating removal of ATP (de-AMPylation) from HSPA5/BiP at 'Thr-518', leading to restore HSPA5/BiP activity (By similarity). Although it is able to AMPylate RhoA, Rac and Cdc42 Rho GTPases in vitro, Rho GTPases do not constitute physiological substrates (By similarity).[UniProtKB/Swiss-Prot Function]