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Product datasheet for RR200370

Fxyd2 (NM_145717) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fxyd2 (NM_145717) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fxyd2
Synonyms:	ATP1C; Atp1g1; GNAKATP
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR200370 representing NM_145717 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGACAGAGCTGTCAGCTAACCATGGTGGCAGTGCCAAGGGGACGGAGAATCCCTTCGAGTATGACTATG AAACCGTCCGCAAAGGAGGCCTGATCTTCGCGGGCCTTGCCTTCGTCGTGGGACTCCTCATTCTCCTCAG CAAAAGATTCCGCTGTGGGGGCAGTAAGAAGCATAGGCAGGTCAATGAAGATGAGCTG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RR200370 representing NM_145717 Red=Cloning site Green=Tags(s) MTELSANHGGSAKGTENPFEYDYETVRKGGLIFAGLAFVVGLLILLSKRFRCGGSKKHRQVNEDEL TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Restriction Sites:	SgfI-MluI

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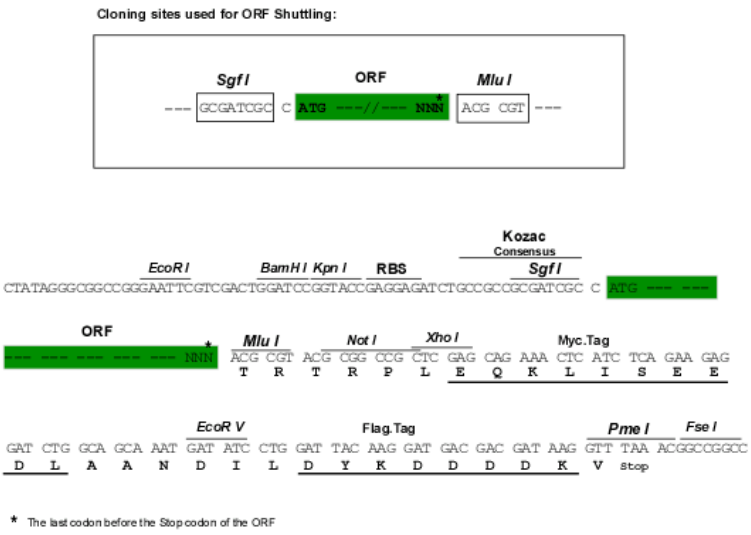
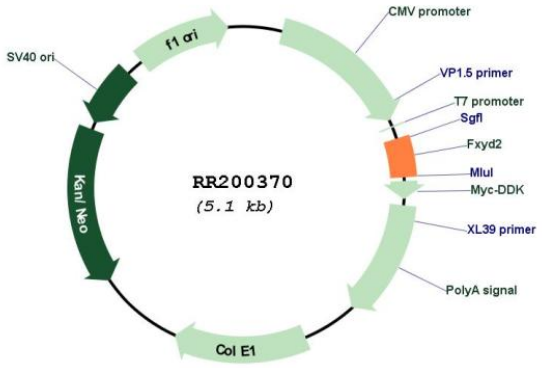
Cloning Scheme:



Plasmid Map:



ACCN: NM_145717

ORF Size: 198 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:	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_145717.1, NP_663769.1
RefSeq Size:	239 bp
RefSeq ORF:	201 bp
Locus ID:	29639
UniProt ID:	Q04679
Cytogenetics:	8q22
MW:	7.3 kDa
Gene Summary:	This gene encodes a member of a family of small membrane proteins that share a 35-amino acid signature sequence domain, beginning with the sequence PFXYD and containing 7 invariant and 6 highly conserved amino acids. This gene, also known as the gamma subunit of the Na,K-ATPase, regulates the properties of that enzyme. Related gene family members have been shown to induce channel activity in experimental expression systems. Transmembrane topology has been established for two family members, with the N-terminus extracellular and the C-terminus on the cytoplasmic side of the membrane. The Type III integral membrane protein encoded by this gene is the gamma subunit of the Na,K-ATPase present on the plasma membrane. Although the Na,K-ATPase does not depend on the gamma subunit to be functional, it is thought that the gamma subunit modulates the enzyme's activity by inducing ion channel activity. Two transcript variants have been described for this gene that encode distinct isoforms. [provided by RefSeq, Jan 2010]