Product datasheet for RG207475

FXYD1 (NM_005031) Human Tagged ORF Clone

Product data:

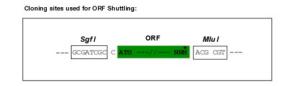|	
Product Type:	Expression Plasmids
Product Name:	FXYD1 (NM_005031) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FXYD1
Synonyms:	PLM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207475 representing NM_005031 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCGTCTCTTGGCCACATCTTGGTTTTCTGTGTGGGTCTCCTCACCATGGCCAAGGCAGAAAGTCCAA AGGAACACGACCCGTTCACTTACGACTACCAGTCCCTGCAGATCGGAGGCCTCGTCATCGCCGGGATCCT CTTCATCCTGGGCATCCTCATCGTGCTGAGCAGAAGATGCCGGTGCAAGTTCAACCAGCAGCAGAGGACT GGGGAACCCGATGAAGAGGAGGGAACTTTCCGCAGCTCCATCCGCCGTCTGTCCACCCGCAGGCGG ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA
Protein Sequence:	>RG207475 representing NM_005031 Red=Cloning site Green=Tags(s) MASLGHILVFCVGLLTMAKAESPKEHDPFTYDYQSLQIGGLVIAGILFILGILIVLSRRCRCKFNQQQRT GEPDEEEGTFRSSIRRLSTRRR TRTRPLE – GFP Tag – V
Restriction Sites:	SgfI-MluI

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Cloning Scheme:

Cloning sites used for ORF Shuttling:

| *Sgf I* | ORF | *Mlu I* |

--- GCGATCGC C ATG ---//--- NNN ACG CGT ---

Kozac Consensus

EcoR I *BamH I Kpn I* RBS *Sgf I* *Asc I*

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGCGCCAGATCT

Hind III *Nhe I Rsr II* *Mlu I* *Not I* *Xho I* GFP Tag

CAAGCTTAACTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---

T R T R P L E M E S D - - -

Pme I *Fse I*

--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT

- - E E R V Stop

ACCN:	NM_005031
ORF Size:	276 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_005031.5
RefSeq Size:	547 bp

ORIGENE

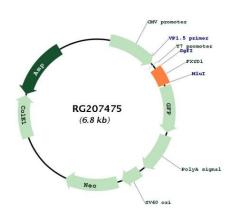|	
RefSeq ORF:	279 bp
Locus ID:	5348
UniProt ID:	O00168
Cytogenetics:	19q13.12
Domains:	ATP1G1_PLM_MAT8
Protein Families:	Ion Channels: Other, Transmembrane
Gene Summary:	This gene encodes a member of a family of small membrane proteins that share a 35-amino acid signature sequence domain, beginning with the sequence PFXYD and containing 7 invariant and 6 highly conserved amino acids. The approved human gene nomenclature for the family is FXYD-domain containing ion transport regulator. Mouse FXYD5 has been termed RIC (Related to Ion Channel). FXYD2, also known as the gamma subunit of the Na,K-ATPase, regulates the properties of that enzyme. FXYD1 (phospholemman), FXYD2 (gamma), FXYD3 (MAT-8), FXYD4 (CHIF), and FXYD5 (RIC) have been shown to induce channel activity in experimental expression systems. Transmembrane topology has been established for two family members (FXYD1 and FXYD2), with the N-terminus extracellular and the C-terminus on the cytoplasmic side of the membrane. The protein encoded by this gene is a plasma membrane substrate for several kinases, including protein kinase A, protein kinase C, NIMA kinase, and myotonic dystrophy kinase. It is thought to form an ion channel or regulate ion channel activity. Transcript variants with different 5' UTR sequences have been described in the literature. [provided by RefSeq, Jul 2008]

Product images:

Circular map for RG207475