

Product datasheet for **RC207475**

FXYD1 (NM_005031) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: FXYD1 (NM_005031) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: FXYD1
Synonyms: PLM
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC207475 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGTCTCTTGGCCACATCTTGGTTTTCTGTGTGGGTCTCCTCACCATGGCCAAGGCAGAAAGTCCAA
AGGAACACGACCCGTTCACTTACGACTACCAGTCCCTGCAGATCGGAGGCCTCGTCATCGCCGGGATCCT
CTTCATCCTGGGCATCCTCATCGTGCTGAGCAGAAGATGCCGGTGAAGTTCAACCAGCAGCAGAGGACT
GGGAACCCGATGAAGAGGAGGAACTTCCGCAGCTCCATCCGCCGTGTCCACCCGCAGGCCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207475 protein sequence
Red=Cloning site Green=Tags(s)
MASLGHILVFCVGLLTMKAESPKEHDPFTYDQSLQIGGLVIAGILFILGILIVLSRRRCCKFNQQQRT
GEPDEEEGTFRSSIRRLSTRRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6334_h06.zip

Restriction Sites: Sgfl-Mlul



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Cloning Scheme:


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: 599 bp

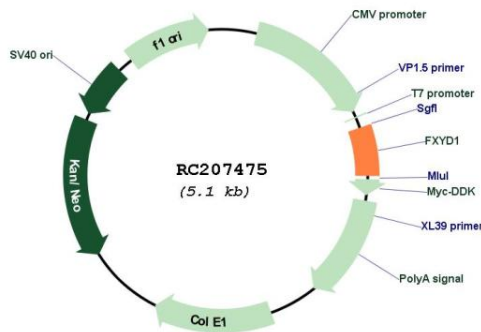
RefSeq ORF: 279 bp

Locus ID: 5348

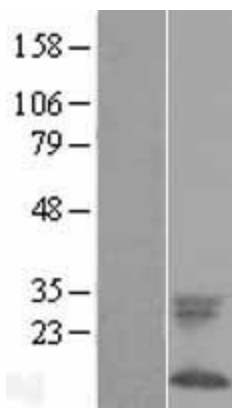
UniProt ID: [O00168](#)
Cytogenetics: 19q13.12
Domains: ATP1G1_PLM_MAT8
Protein Families: Ion Channels: Other, Transmembrane
MW: 10.4 kDa

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. 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]

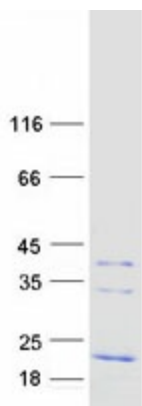
Product images:



Circular map for RC207475



Western blot validation of overexpression lysate (Cat# [LY417593]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207475 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FXYD1 protein (Cat# [TP307475]). The protein was produced from HEK293T cells transfected with FXYD1 cDNA clone (Cat# RC207475) using MegaTran 2.0 (Cat# [TT210002]).