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Product datasheet for RG235560

FXYD1 (NM_001278717) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FXYD1 (NM_001278717) 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:

>RG235560 representing NM_001278717.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGTCTCTTGGCCACATCTTGGTTTTCTGTGTGGGTCTCCTCACCATGGCCAAGGCAGAAAGTCCA
AAGGAACACGACCCGTTCACTTACGACTACCAGTCCCTGCAGATCGGAGGCCTCGTCATCGCCGGGATC
CTCTTCATCCTGGGCATCCTCATCGTGCTGAGCAGAAGATGCCGGTGCAAGTTCAACCAGCAGCAGAGG
ACTGGGGAACCCGATGAAGAGGAGGGAACTTTCCGCAGCTCCATCCGCCGTCTGTCCACCCGCAGGCGG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

Protein Sequence:

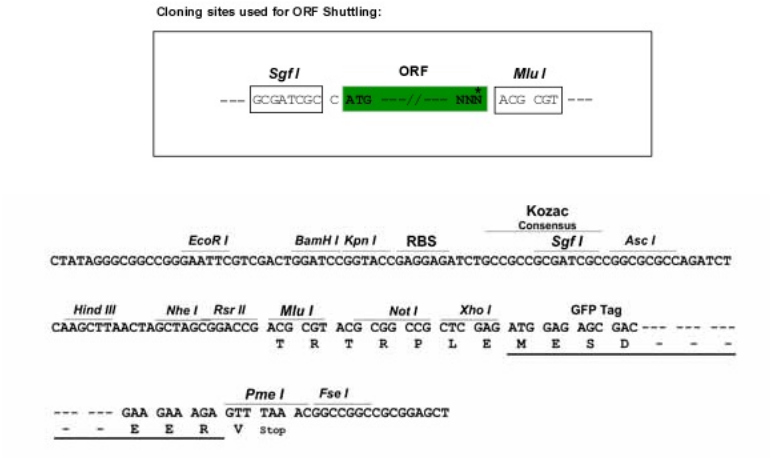
>Peptide sequence encoded by RG235560
Blue=ORF Red=Cloning site Green=Tag(s)

MASLGHILVFCVGLLTMAKAESPKEHDPFTYDYQSLQIGGLVIAGILFILGILIVLSRRCRCKFNQQQR
TGEPDEEEGTFRSSIRRLSTRRR
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

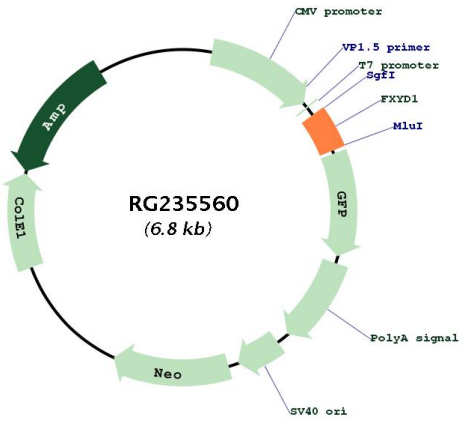
Restriction Sites: SgfI-MluI

View online »

Cloning Scheme:



Plasmid Map:



ACCN: NM_001278717

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).
RefSeq:	NM_001278717.1, NP_001265646.1
RefSeq Size:	709 bp
RefSeq ORF:	279 bp
Locus ID:	5348
UniProt ID:	O00168
Cytogenetics:	19q13.12
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]