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Product datasheet for MG210283

Pik3r2 (NM_008841) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pik3r2 (NM_008841) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pik3r2
Synonyms:	p85beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>MG210283 representing NM_008841
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGGAGCCGAGGGCTTCCAGTACAGGGCTGTGTACCCATTCCGCCGGGAGCGGCCTGAAGACCTGG
AGCTGCTCCCTGGGGACCTCCTGGTGGTGAGCCGGGTGGCCCTACAGGCACTTGGTGTGGCTGATGGAGG
AGAGCGCTGCCCACACAATGTGGGCTGGATGCCTGGCTTCAACGAGCGCACCCGACAGCGAGGGGACTTC
CCCGGGACATACGTGGAGTTCCTAGGACCCGTGGCTCTGGCTCGACCAGGCCCTCGCCCACGGGGGCCCC
GTCCGTTGCCCGCCAGGCCCTTGGATGGATCTTCTGAGTCAGGCCACATACTCCCAGACCTGGCAGAGCA
GTTCTCCCCACCTGACCCTGCTCCCCCGATTCTGGTGAAGCTGGTGGAAGCCATTGAGCAAGCAGAGCTG
GACAGTGAATGCTACAGTAAGCCGGAGCTGCCCGCAACACGGACAGACTGGTCCCTGAGTGACTTGGAGC
AGTGGGACCGCACCGCCTTGTATGATGCTGTTAAGGGCTTCCTGCTGGCGTTGCCTGCAGCTGTGGTGAC
CCCTGAAGCTGCAGCAGAGGCGTACCGGGCACTTCGAGAGGTTGCAGGCCCCGTGGGGCTGGTGCTGGAA
CCCCCAACACTGCCGCTGCACCAGGCTCTCACACTGCGTTTCCTGCTGCAACACCTGGGTCGTGTGGCCC
GCAGAGCACCCTCGCCAGATACAGCTGTCCATGCACTGGCCAGTGCCTTCGGGCCGCTACTGCTGCGCAT
ACCTCCGTCAGGGGGCGAGGGTGATGGGAGTGAGCCTGTACCCGACTTCCCTGTGCTGCTGCTAGAGAGG
CTGGTGCAGGAGCATGTGGAGGAGCAAGACGCTGCCCCCCCAGCGCTACCACCTAAGCCCTCTAAGGCAA
AGCCGGCACCCACAGCTCTGGCCAATGGAGGGAGCCCGCCCTCGCTTCAGGATGCAGAGTGGTACTGGGG
GGACATCTCCAGGGAAGAGGTGAATGAGAGACTCCGGGACACACCTGATGGTACCTTCTTAGTCAGAGAT
GCATCCAGCAAGATCCAAGGAGAGTACACGCTCACCCTCAGGAAAGGCGGGAACAACAAGTTGATCAAAG
TCTTCCACCGGGATGGTCACTATGGCTTCTCAGAGCCCCTTACCTTCTGCTCCGTGGTGGAACTCATCTC
CCACTACCGCCACGAATCACTGGCCCAGTACAACGCCAAGCTGGACACACGCCTTCTCTACCCTGTGTCC
AAGTACCAACAAGACCAGGTGGTGAAGGAGGACAGCATAGAGGCTGTGGGCGCCCAGCTCAAGGTCTACC
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GCTGCAGATGAAGCGCACAGCCATAGAGGCCTTCAACGAGACCATCAAGATCTTCGAAGAGCAGGGCCAG
ACACAGGAGAAATGCAGCAAGGAGTATTTGGAGCGCTTCCGGCGAGAGGGAAATGAGAAGGAGATGCAGA
GGATCCTGCTGAACTCCGAGCGACTCAAGTCTCGCATCGCGGAGATACACGAAAGCCGCACGAAGTTGGA
GCAGGATCTGCGGGCGCAGGCCTCCGACAACCGTGAGATCGACAAGCGCATGAACAGCCTCAAACCTGAC
CTCATGCAGCTGCGCAAGATCAGGGACCAGTACCTCGTGTGGCTCACCCAGAAAGGTGCCCGACAGAGGA
AGATCAACGAATGGCTGGGAATCAAGAACGAGACTGAGGACCAGTATTCACTGATGGAGGATGAGGACGC
CCTCCCCCACCACGAGGAGCGCACGTGGTACGTGGGCAAGATCAACCGCACACAGGCGGAGGAGATGCTG
AGTGGCAAACGAGACGGGACCTTCCTCATCCGGGAGAGCAGCCAGCGGGGCTGTTACGCATGCTCCGTGG
TGGTGGACGGCGACACGAAGCACTGTGTCATCTACCGCACAGCCACCGGCTTCGGCTTCGCAGAGCCCTA
TAACCTGTACGGGTCCCTGAAGGAGCTGGTGCTGCACTACCAGCACGCATCACTCGTGCAGCACAATGAC
GCACTTACCGTCACCCTCGCACACCCTGTGCGTGCCCCCGGGCCTGGCCCACCGTCTGCAGCACGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

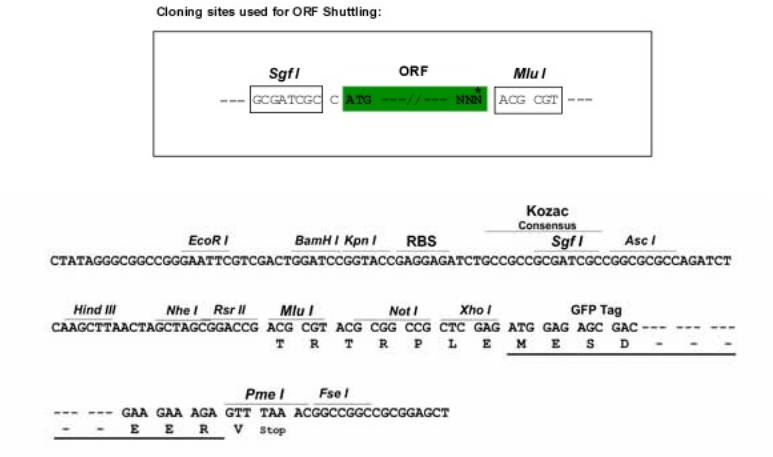
>MG210283 representing NM_008841
Red=Cloning site Green=Tags(s)

MAGAEGFQYRAVYPFRRERPEDLELLPGDLLVVSRVALQALGVADGGERCPHNVGWMPGFNERTRQRGDF
PGTYVEFLGPVALARPGPRPRGPRPLPARPLDGSSESGHILPDLAEQFSPPDPAPPILVKLVEAIEQAEL
DSECYSKPELPATRTDWSLSDLEQWDRTALYDAVKGFLLALPAAVVTPEAAAEAYRALREVAGPVGLVLE
PPTLPLHQALTLRFLLQHLGRVARRAPSPDTAVHALASAFGPLLLRIPPSGGEGDGSEPVPDFPVLLLER
LVQEHVEEQDAAPPALPPKPSKAKPAPTALANGGSPPSLQDAEWYWGDISREEVNERLRDTPDGTFLVRD
ASSKIQGEYTLTLRKGGNNKLIKVFHRDGHYGFSEPLTFCSVVELISHYRHESLAQYNAKLDTRLLYPVS
KYQQDQVVKEDSIEAVGAQLKVYHQQYQDKSREYDQLYEEYTRTSQELQMKRTAIEAFNETIKIFEEQGQ
TQEKCSKEYLERFRREGNEKEMQRILLNSERLKSRIAEIHESRTKLEQDLRAQASDNREIDKRMNSLKPD
LMQLRKIRDQYLVWLTQKGARQRKINEWLGIKNETEDQYSLMEDEDALPHHEERTWYVGKINRTQAEEML
SGKRDGTFLIRESSQRGCYACSVVVDGDTKHCVIYRTATGFGFAEPYNLYGSLKELVLHYQHASLVQHND
ALTVTLAHPVRAPGPGPPSAAR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_008841

ORF Size: 2166 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_008841.3

RefSeq Size: 3159 bp

RefSeq ORF: 2169 bp

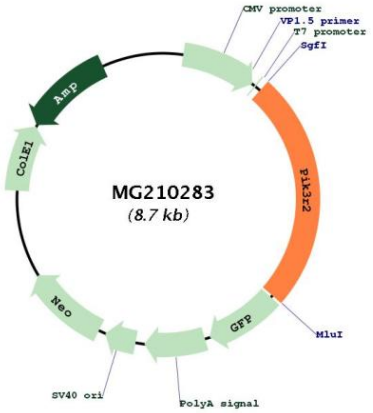
Locus ID: 18709

UniProt ID: O08908

Cytogenetics: 8 34.15 cM

Gene Summary: Regulatory subunit of phosphoinositide-3-kinase (PI3K), a kinase that phosphorylates PtdIns(4,5)P2 (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Binds to activated (phosphorylated) protein-tyrosine kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Indirectly regulates autophagy (By similarity). Promotes nuclear translocation of XBP1 isoform 2 in a ER stress- and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement (PubMed:20348926).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG210283