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Product datasheet for MG209076

Gpc3 (NM_016697) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpc3 (NM_016697) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gpc3
Synonyms:	OCI-5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>MG209076 representing NM_016697
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGGGACCGTGCGCACCGCGTGCTTGCTGGTGGCGATGCTGCTAGGCTTGGGCTGCCTGGGACAGG
CGCAGCCCCCGCCGCCTCCAGACGCCACCTGTCACCAGGTCCGTTCTTTCTTCCAGAGACTGCAGCCCGG
ACTCAAATGGGTTCCAGAAACCCCTGTACCAGGATCAGATTTGCAAGTATGTCTCCCCAAGGGCCCAACA
TGCTGCTCAAGAAAGATGGAAGAAAAATACCAACTAACAGCACGGCTGAACATGGAACAACTGCTCCAGT
CTGCGAGTATGGAACTCAAGTTCTTAATTATTCAGAATGCTGCGGTTTTCCAAGAGGCCTTTGAAATTGT
TGTTCGCCATGCCAAGAACTACACCAACGCCATGTTCAAGAATAACTACCCCAGCCTGACTCCACAAGCT
TTTGAGTTTGTCGGTGAATTTTTCACAGATGTGTCTCTCTACATCTTGGGTTCTGATATCAACGTGGATG
ATATGGTCAATGAATTGTTCGACAGCCTCTTTCCAGTCATCTACACCCAGATGATGAACCCAGGCCTGCC
TGAGTCAGTCTTAGACATCAACGAGTGCCTCCGAGGAGCAAGACGTGACCTGAAAGTATTTGGCAGTTTC
CCCAAGCTTATTATGACCCAGGTTTCCAAGTCACTGCAAGTCACTCGAATCTTCCTTCAAGCCCTGAATC
TCGGAATTGAAGTCATCAACACTACCGACCACCTCAAGTTTAGTAAGGACTGTGGCCGTATGCTCACCCG
AATGTGGTATTGCTCTTACTGCCAGGGACTGATGATGGTTAAGCCTTGCGGTGGTTATTGCAATGTGGTC
ATGCAAGGCTGTATGGCTGGTGTGGTGGAGATCGACAAGTACTGGAGAGAATACATTCTGTCTCTTGAAG
AGCTCGTGAATGGCATGTACAGAATCTACGACATGGAGAATGTGCTGCTCGGCCTCTTTTCTACCATCCA
TGATTCCATCCAGTATGTGCAGAAGAACGGAGGCAAGCTGACCACCACCATTGGCAAGTTGTGTGCCCAC
TCCCAGCAACGCCAATATAGATCTGCTTATTACCCTGAAGATCTGTTTATTGACAAGAAGATATTAAAAG
TCGCTCATGTCGAACATGAAGAAACCTTATCCAGCCGAAGAAGGGAACTGATTCAGAAACTGAAGTCTTT
CATCAACTTCTATAGCGCTTTGCCGGGCTACATCTGCAGCCATAGCCCCGTGGCCGAAAATGATACCCTG
TGCTGGAACGGACAAGAACTTGTGGAGAGATACAGCCAGAAGGCGGCAAGGAACGGGATGAAGAATCAGT
TTAACCTCCATGAGCTGAAAATGAAGGGCCCTGAGCCGGTGGTTAGCCAGATCATTGACAAACTGAAGCA
CATTAACCAGCTCCTGAGAACCATGTCTGTGCCCAAGGGTAAAGTTCTGGATAAAAGCCTGGATGAAGAA
GGACTTGAAAGTGGAGACTGCGGTGATGATGAAGATGAATGCATTGGAAGCTCTGGTGACGGGATGGTGA
AAGTGAAGAATCAACTGCGCTTCCTTGCAGAACTGGCCTATGATCTGGATGTGGACGATGCTCCGGGGAA
CAAGCAGCATGGAAATCAGAAGGACAACGAGATCACCACCTCTCACAGCGTGGGGAACATGCCGTCCCCA
CTGAAGATCCTCATCAGTGTGGCCATCTATGTGGCGTGCTTTTTTTTCCTGGTGCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

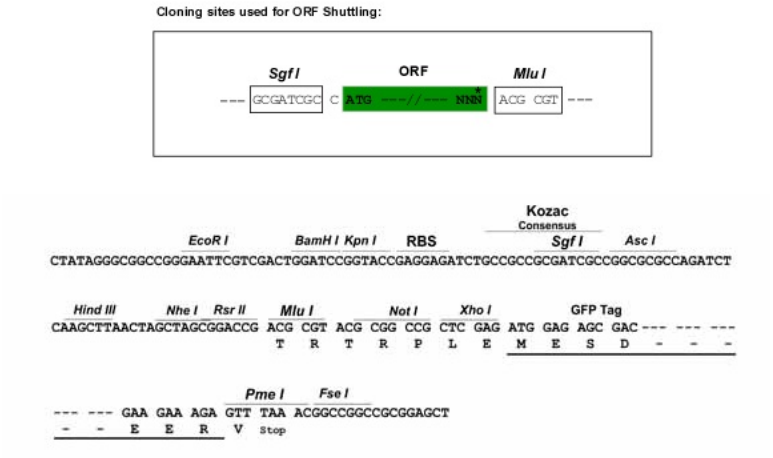
>MG209076 representing NM_016697
Red=Cloning site Green=Tags(s)

MAGTVRTACLLVAMLLGLGCLGQAQPPPPPDATCHQVRSFFQRLQPGLKWVPETPVPGSDLQVCLPKGPT
CCSRKMEEKYQLTARLNMEQLLQSASMELKFLIIQNAAVFQEAFEIVVRHAKNYTNAMFKNNYPSLTPQA
FEFVGEFFTDVSLYILGSDINVDDMVNELFDSLFPVIYTQMMNPGLPESVLDINECLRGARRDLKVFGSF
PKLIMTQVSKSLQVTRIFLQALNLGIEVINTTDHLKFSKDCGRMLTRMWYCSYCQGLMMVKPCGGYCNVV
MQGCMAGVVEIDKYWREYILSLEELVNGMYRIYDMENVLLGLFSTIHDSIQYVQKNGGKLTTTIGKLCAH
SQQRQYRSAYYPEDLFIDKKILKVAHVEHEETLSSRRRELIQKLKSFINFYSALPGYICSHSPVAENDTL
CWNGQELVERYSQKAARNGMKNQFNLHELKMKGPEPVVSQIIDKLKHINQLLRTMSVPKGKVLDKSLDEE
GLESGDCGDDEDECIGSSGDGMVKVKNQLRFLAELAYDLDVDDAPGNKQHGNQKDNEITTSHSVGNMPSP
LKILISVAIYVACFFFLVH

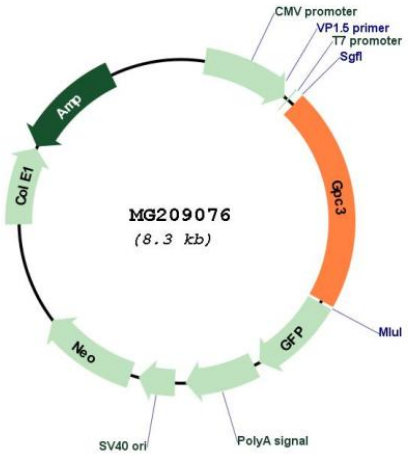
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_016697

ORF Size: 1737 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_016697.3
RefSeq Size:	2312 bp
RefSeq ORF:	1740 bp
Locus ID:	14734
UniProt ID:	Q8CFZ4
Cytogenetics:	X A5
Gene Summary:	Cell surface proteoglycan that bears heparan sulfate (By similarity). Negatively regulates the hedgehog signaling pathway when attached via the GPI-anchor to the cell surface by competing with the hedgehog receptor PTC1 for binding to hedgehog proteins (PubMed:18477453, PubMed:23665349). Binding to the hedgehog protein SHH triggers internalization of the complex by endocytosis and its subsequent lysosomal degradation (PubMed:18477453). Positively regulates the canonical Wnt signaling pathway by binding to the Wnt receptor Frizzled and stimulating the binding of the Frizzled receptor to Wnt ligands (By similarity). Positively regulates the non-canonical Wnt signaling pathway (PubMed:15537637). Binds to CD81 which decreases the availability of free CD81 for binding to the transcriptional repressor HHEX, resulting in nuclear translocation of HHEX and transcriptional repression (PubMed:23665349). Inhibits the dipeptidyl peptidase activity of DPP4 (By similarity). Plays a role in limb patterning and skeletal development by controlling the cellular response to BMP4 (PubMed:10964473). Modulates the effects of growth factors BMP2, BMP7 and FGF7 on renal branching morphogenesis (PubMed:11180950). Required for coronary vascular development (PubMed:19733558). Plays a role in regulating cell movements during gastrulation (By similarity).[UniProtKB/Swiss-Prot Function]