

Product datasheet for **MR209076**

Gpc3 (NM_016697) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpc3 (NM_016697) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpc3
Synonyms:	OCI-5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR209076 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGGGACCGTGCACCCGCTGCTTGTGGTGGCGATGCTGCTAGGCTTGGCTGCCTGGGACAGG
 CGCAGCCCCCGCCCTCCAGACGCCACCTGTACCAGGTCCGTTCTTTCTCCAGAGACTGCAGCCCGG
 ACTCAAATGGGTTCCAGAAACCCCTGTACCAGGATCAGATTTGCAAGTATGTCTCCCAAGGCCCAACA
 TGCTGCTCAAGAAAGATGGAAGAAAAATACCAACTAACAGCACGGCTGAACATGGAACAAGTCTCCAGT
 CTGCGAGTATGGAAGTCAAGTTCTTAATTATTACAGAACTGCTGCGGTTTTCCAAGAGGCCCTTTGAAATTGT
 TGTTCCGCATGCCAAGAACTACACCAACGCCATGTTCAAGAATACTACCCAGCCTGACTCCACAAGCT
 TTTGAGTTTGTCCGGTGAATTTTTACAGATGTCTCTCTACATCTTGGGTTCTGATATCAACGTGGATG
 ATATGGTCAATGAATTGTTGCAGCCTCTTTCCAGTCATCTACCCAGATGATGAACCCAGGCCCTGCC
 TGAGTCAGTCTTAGACATCAACGAGTGCCTCCGAGGAGCAAGACGTGACCTGAAAGTATTTGGCAGTTTC
 CCCAAGCTTATTATGACCCAGGTTTCCAAGTCACTGCAAGTCACTCGAATCTTCTTCAAGCCCTGAATC
 TCGGAATTGAAGTCATCAACACTACCGACCACCTCAAGTTTAGTAAGGACTGTGGCCGATGCTCACCCG
 AATGTGGTATTGCTTTACTGCCAGGACTGATGATGGTTAAGCCTTGGGTGGTTATTGCAATGTGGTC
 ATGCAAGGCTGTATGGCTGGTGTGGTGGAGATCGACAAGTACTGGAGAGAATACATTCTGTCTCTTGAAG
 AGCTCGTGAATGGCATGTACAGAATCTACGACATGGAGAATGTGCTGCTCGGCCTTTTTCTACCATCCA
 TGATTCATCCAGTATGTGCAGAAGAACGGAGGCAAGCTGACCACCACCTTGGCAAGTTGTGTGCCAC
 TCCAGCAACGCCAATATAGATCTGCTTATTACCCTGAAGATCTGTTTATTGACAAGAAGATATTTAAAG
 TCGCTCATGTGCAACATGAAGAAACCTTATCCAGCCGAAGAAGGGAAGTATTGAGAACTGAAGTCTTT
 CATCAACTTCTATAGCGCTTGGCCGGCTACATCTGCAGCCATAGCCCCGTGGCCGAAAATGATACCCTG
 TGCTGGAACGGACAAGAAGTGTGGAGAGATACAGCCAGAAGGCCGGAAGGAACGGGATGAAGAATCAGT
 TTAACCTCCATGAGCTGAAAATGAAGGGCCCTGAGCCGGTGGTTAGCCAGATCATTGACAACTGAAGCA
 CATTAAACCAGCTCCTGAGAACCATGTCTGTGCCAAGGGTAAAGTTCTGGATAAAAGCCTGGATGAAGAA
 GGACTTGAAGTGGAGACTGCGGTGATGATGAAGATGAATGCATTGGAAGCTCTGGTACGGGATGGTGA
 AAGTGAAGAACTCACTGCGCTTCTTGCAGAACTGGCCTATGATCTGGATGTGGACGATGCTCCGGGGAA
 CAAGCAGCATGGAATCAGAAGGACAACGAGATACCACCTCTCACAGCGTGGGGAAATGCCGTCCTCA
 CTGAAGATCCTCATCAGTGTGGCCATCTATGTGGCGTGTCTTTTTTCTGGTGCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209076 protein sequence
 Red=Cloning site Green=Tags(s)

MAGTVRTACLLVAMLLGLGLGQAQPPPPDATCHQVRSFFQRLQPGLKWPETPVPGSDLQVCLPKGPT
 CCSRKMEEKYQLTARLNMEQLLQSASMEKFLIIQNAAVFQEAFEIVVRHAKNYTNAMFKNNYPSLTPQA
 FEFVGEFFTDVSLYLIGSDINVDDMVNELFDSLFPVIYQMMNPLPESVLDINECLRGARRDLKVFGSF
 PKLIMTQVSKSLQVTRIFLQALNLGIEVINTTDHLKFSKDCGRMLTRMWYCSYQGLMMVKPCGGYCNV
 MQGCMAGVVEIDKYWREYILSLEELVNGMYRIYDMENVLLGLFSTIHDSIQYVQKNGGKLTITIGKLC
 SQQRQYRSAYYPEDLFIDKKILKVAHVEHEETLSRRRELIQKLKSFINFYSALPGYICSHSPVAENDL
 CWNGQELVERYSQKAARNGMKNQFNHLMKMGPEPVVSIIDKLNHINQLLRMTSPKGVLDKSLDEE
 GLESGDCGDEDECIGSSGDMVKVKNQLRFLAELAYDLVDVDDAPGNKQHGKQKDNIEITTSHSVGNMPS
 LKILISVAIYVACFFFLVH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_016697

ORF Size: 1740 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: 2272 bp

RefSeq ORF: 1740 bp

Locus ID: 14734

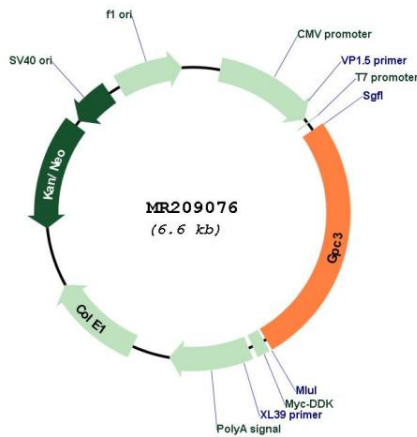
UniProt ID: [Q8CFZ4](#)

Cytogenetics: X A5

MW: 65.3 kDa

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]

Product images:



Circular map for MR209076