

Product datasheet for **MR208830**

Gpc1 (NM_016696) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpc1 (NM_016696) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpc1
Synonyms:	A1462976
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208830 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAACTCCGGACCCGAGGCTGGTGGCTGCTGTGCGCGGCCCGCGCTGGTCTGTCGCCCCGGGG
 ACCCCGCCAGCAAGAGCCGGAGCTGCAGCGAAGTCCGCCAGATCTACGGGCTAAGGGCTTAGCCTGAG
 CGATGTGCCTCAGGCAGAGATCTCGGGTGAACCTGCGGATCTGCCCCAGGGTACACTTGTGTACT
 AGTGAGATGGAGGAGAATTTGGCCAACACAGCCGAATGGAGCTGGAGAGCGCACTCCATGACAGCAGCC
 GCGCCCTGCAGGCCACACTGGCCACCCAGCTGCATGGCATCGATGACCACTTCCAGCGCCTGCTGAATGA
 CTCGGAGCGCACACTGCAGGAGGCTTTCCTGGGGCCTTTGGGGACCTGTATACGCAGAACACTCGTGCC
 TTCGGGACCTATATGCTGAGCTGCGCCTACTACCGTGGGGCCAACTGCACCTTGGAGAGACGCTGG
 CCGAGTCTGGGACGGCTGCTGGAGCGCCTTCAAGCAGCTGCACCCAGCTGCTGCCTGATGACTA
 CCTGGACTGCCTGGGCAAGCAGGCGGAGGCACTGCGGCCGTTTGGAGATGCCCTCGAGAAGTGCAGCTG
 CGGGCCACCCGTGCCTTTGTGGCTGCACGTTCTTTGTGCAAGGGCTGGGTGTGGCCAGTGTAGTCC
 GGAAGGTGGCCAGGTACCTCTGGCCCCAGAATGTTCTCGGGCCATCATGAAGTTGGTCTACTGTGCTCA
 TTGCCGGGGAGTCCCGGGCGCCCGGCCCTGCCCGACTATTGCCGAAATGTGCTCAAAGGCTGCCTTGCC
 AACCAGGCCGACCTGGATGCCGAGTGGAGGAACCTCCTGGACTCCATGGTGTCTACTGACAAGTTCT
 GGGGCCGTCGGGTGCGGAGAGTGTCAATGGCGGTGTGCACGTGTGGCTGGCGGAGGCCATCAACGCCCT
 CCAGGACAACAAGGACACACTCACAGCTAAGGTCATCCAGGCTGTGGAAACCCCAAGGTCATCCCCAC
 GGCTCTGGGCCCGAGGAGAAGCGTCGCCGTGGCAAATGGCACTGCAGGAGAAGCCCTCCACAGGTACTC
 TGGAAAACTGGTCTCTGAGGCCAAGGCCAGCTCCGAGACATTAGGACTTCTGGACTCAGCTCCAGG
 GACACTGTGACGTGAGAAGATGGCCATGAGTCTGCCAGTGACGACCGCTGCTGGAATGGAATTTCCAAG
 GGCCGGTACCTACCAGAGGTGATGGGTGACGGGCTGGCCAACCAGATCAACAACCCTGAGGTGGAAGTGG
 ACATACCAAGCCAGACATGACCATCCGCCAGCAGATTATGCAGCTCAAGATCATGACCAACCGTTTACG
 TGGCGCTATGGCGCAACGACGTGGACTTCCAGGATGCTAGTGTGACGGCAGTGGCTCCGGCAGCGGT
 GGCGGATGCCAGATGACACCTGTGGCCGAGGGTCCAGCAAGAAGAGTTCAGCTCCCGGACCCCTTGA
 CCCATGCCCTCCCGCCTGTGAGAACAGGAGGACAGAAAGACCTCAGCTGCCACCTGCCAGAGCCCCA
 CAGCTTCTCCTGCTCTCCTCGTACCTTGGTCTTGGCGCAGCCAGGCCAGGTGGCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208830 protein sequence
 Red=Cloning site Green=Tags(s)

MELRTRGWLLCAAALVVCARGDPASKSRSCSEVRQIYGAKGFSLSVDPQAEISGEHLRIPCQGYTCCT
 SEMEENLANHSRMELESALHDSSRALQATLATQLHGIDDFQRLNDSERTLQEAFFGAFGLYQNTA
 FRDLYAELRLYYRGANLHLEETLAEFWARLLERLFKQLHPQLLPDDYLDCLGKQAEALRPFGDAPRELRL
 RATRAVFAARSFVQGLGVASDVVRKVAQVPLAPECSRAIMKLVYCAHCRGVPGARPCPDYCRNVLKGCLA
 NQADLDAEWRNLLDSMVLITDKFWGPSGAESVIGGVHVLAEAINALQDNKDTLAKVIQACGNPKVNP
 GSGPEEKRRRGLALQEKPTGTLEKLVSEAKAQLRDIQDFWISLPGTLCSEKMAMSPASDDRCWNGISK
 GRYLPEVMGDGLANQINNPEVEVDITKPDMTIRQQIMQLKIMTNRLRGAYGGNDVDFQDASDDGSGSGSG
 GGCPDDTCGRRVSKSSSRTPLTHALPGLSEQEQKTSAAATCPEPHSFLLFLVTLVLAARPRWR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_016696

ORF Size: 1674 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_016696.5](#)

RefSeq Size: 3552 bp

RefSeq ORF: 1674 bp

Locus ID: 14733

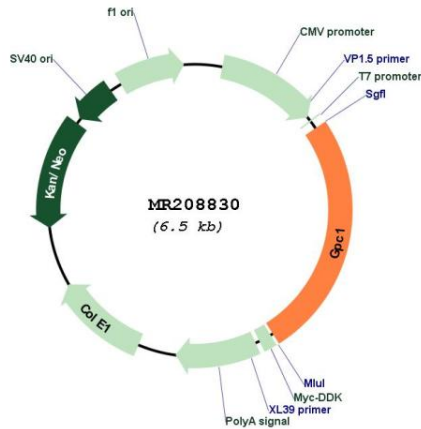
UniProt ID: [Q9QZF2](#)

Cytogenetics: 1 D

MW: 61.4 kDa

Gene Summary: Cell surface proteoglycan that bears heparan sulfate. Binds, via the heparan sulfate side chains, alpha-4 (V) collagen and participates in Schwann cell myelination (By similarity). May act as a catalyst in increasing the rate of conversion of prion protein PRPN(C) to PRNP(Sc) via associating (via the heparan sulfate side chains) with both forms of PRPN, targeting them to lipid rafts and facilitating their interaction. Required for proper skeletal muscle differentiation by sequestering FGF2 in lipid rafts preventing its binding to receptors (FGFRs) and inhibiting the FGF-mediated signaling. Binds Cu(2+) or Zn(2+) ions.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208830