

Product datasheet for **RC207615**

GPNMB (NM_001005340) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPNMB (NM_001005340) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPNMB
Synonyms:	HGFIN; NMB; PLCA3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207615 representing NM_001005340
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAATGTCTACTATTTCTGGATTCTGCTCCTGGCTGCAAGATTGCCACTTGATGCCGCCAAAC
 GATTTTCATGATGTGCTGGCAATGAAAGACCTTCTGCTTACATGAGGGAGCAATCAATTAATGGCTG
 GTCTTCTGATGAAAATGACTGGAATGAAAACTTACCCAGTGTGGAAGCGGGGAGACATGAGGTGAAAA
 AACTCCTGGAAGGGAGGCCGTGTGACGGCGCTGACCAGTGACTACCCAGCCCTCGTGGGCTCAAATA
 TAACATTTGCGGTGAACCTGATATTCCTAGATGCCAAAAGGAAGATGCCAATGGCAACATAGTCTATGA
 GAAGAAGTGCAGAAATGAGGCTGGTTTATCTGCTGATCCGTATGTTTACAAGTGGACAGCATGGTCAGAG
 GACAGTGACGGGAAAAATGGACCGGCCAAAGCCATCATAACGTCTTCCCTGATGGGAAACCTTTTCCTC
 ACCACCCCGATGGAGAAGATGGAATTTTACCTACGTCTTCCACACACTGGTCAGTATTTCCAGAATT
 GGGACGATGTTTCACTGAGAGTTTCTGTGAACACAGCCAATGTGACACTTGGCCCTCAACTCATGGAAGT
 ACTGTCTACAGAAGACATGGACGGGCATATGTTCCCATCGACAAGTGAAGATGTGTACGTGGTAAACAG
 ATCAGATTCCTGTGTTTGTGACTATGTTCCAGAAGAACGATCGAAATTCATCCGACGAAACCTTCTCAA
 AGATCTCCCCATTATGTTTGATGTCTGATTATGATCCTAGCCACTTCTCAATTATTCTACCATTAAC
 TACAAGTGGAGCTTCGGGGATAACTGGCCTGTTTGTTCACCAATCATACTGTGAATCACACGTATG
 TGCTCAATGGAACCTTACGCTTAACTCACTGTGAAAGTGCAGCACCAGGACCTTGTCCGCCACCGCC
 ACCACCACCCAGACCTTCAAACCCACCCCTTCTTAGCAACTACTCTAAAATCTTATGATTCAAACACC
 CCAGGACTGCTGGTGACAACCCCTGGAGCTGAGTAGGATTCCTGATGAAAAGTGGCAGATTAACAGAT
 ATGGCCACTTTCAAGCCACCATACAATGTAGAGGGAATCTTAGAGGTTAACATCATCCAGATGACAGA
 CTGCTGATGCCGGTGCCATGGCCTGAAAGCTCCCTAATAGACTTTGTCGTGACCTGCCAAGGGAGCATT
 CCCACGGAGGTCTGTACCATCATTTCTGACCCACCTGCGAGATCACCCAGAACACAGTCTGACGCCCTG
 TGGATGTGGATGAGATGTGTCTGCTGACTGTGAGACGAACCTTCAATGGGTCTGGGACGACTGTGTGAA
 CCTCACCTGGGGATGACACAAGCCTGGCTCTCACGAGCACCCTGATTTCTGTTCTGACAGAGACCCA
 GCCTCGCCTTAAAGGATGGCAAACAGCGCCCTGATCTCCGTTGGCTGCTGGCCATATTTGCTACTGTGA
 TCTCCCTCTTGGTGTACAAAAACACAAGGAATACAACCCAATAGAAAATAGTCTGGGAATGTGGTCAG
 AAGCAAAGGCCTGAGTGTCTTTCTCAACCGTGCAAAGCCGTGTTCTTCCGGGAAACCAGGAAAAGGAT
 CCGCTACTCAAAAACCAAGAATTTAAAGGAGTTTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207615 representing NM_001005340
 Red=Cloning site Green=Tags(s)

MECLYYFLGFLLLAARLPLDAAKRFHDLGNERPSAYMREHNQLNGWSSDENDWNEKLYPVWKRGMRWK
 NSWKGGRVQAVLTS DSPALVGSNITFAVNLIFPRCQKEDANGNIYVEKNCRNEAGLSADPYVYNWTAWSE
 DSDGENGTGQSHHNVFPDGKPFPHHPGWRRWNIYVFHTLGQYFQKLGRCVSRVSVNTANVTLGPQLMEV
 TVYRRHGRAYVPIAQVKDYYVVDQIPVFVTFQKNDNRSSDETFKDLPIIMFDVLIHDP SHFLNYSTIN
 YKWSFGDNTGLFVSTNHTVNHTYVLNGTFSLNLTVKAAAPGPCPPPPPPRPSKPTSLATTLKSYDSNT
 PGPAGDNPLELSRIPDENCQINRYGHFQATITIVGILEVNI IQMTDVLMPVPWPPESSLIDFVVTCQGSI
 PTEVCTIISDPTCEITQNTVCSVDVDEMCLLTVRRFTNGSGTYCNLTLGDDTSLALTSTLISVPDRDP
 ASPLRMANSALISVGLAIFVTVISLLVYKHKKEYNPIENSPGNVVRKGLSVFLNRAKAVFFPGNQEKD
 PLLKNQEFKGV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2502_d10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001005340

ORF Size: 1716 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_001005340.1](#), [NP_001005340.1](#)

RefSeq Size: 2775 bp

RefSeq ORF: 1719 bp

Locus ID: 10457

UniProt ID: [Q14956](#)

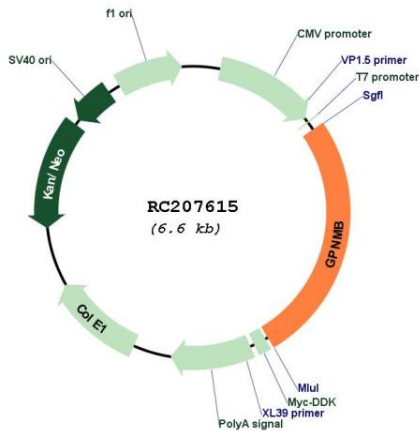
Cytogenetics: 7p15.3

Protein Families: Druggable Genome, Transmembrane

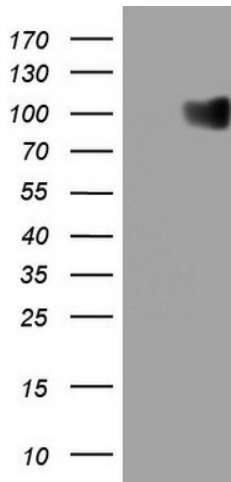
MW: 63.92 kDa

Gene Summary: The protein encoded by this gene is a type I transmembrane glycoprotein which shows homology to the pMEL17 precursor, a melanocyte-specific protein. GPNMB shows expression in the lowly metastatic human melanoma cell lines and xenografts but does not show expression in the highly metastatic cell lines. GPNMB may be involved in growth delay and reduction of metastatic potential. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

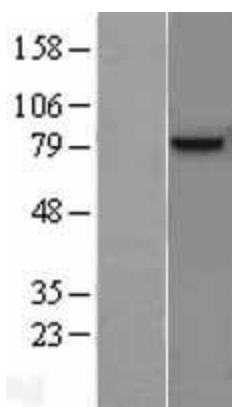
Product images:



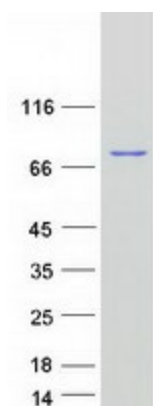
Circular map for RC207615



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GPNMB (Cat# RC207615, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GPNMB(Cat# [TA807721]). Positive lysates [LY400379] (100ug) and [LC400379] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400379]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207615 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GPNMB protein (Cat# [TP307615]). The protein was produced from HEK293T cells transfected with GPNMB cDNA clone (Cat# RC207615) using MegaTran 2.0 (Cat# [TT210002]).