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Product datasheet for MC208562

Gna12 (NM_010302) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gna12 (NM_010302) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gna12
Synonyms:	AI414047; AI504261; Galpha12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC208562 representing NM_010302
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCGGGGTGGTGCGGACCCTTAGCCGCTGCTTGCTGCCGGCCGAGGCCGGAGCCCGCGAGCGCAGGG
CGGGCGCGGCGCGCGACGCGGAGCGCGAGGCCCGACGGCGCAGCCGCGACATCGACGCGCTGCTGGCCCG
CGAGCGGCGCGCGGTGCGGCGGCTGGTCAAGATCCTGCTGCTGGGCGCCGGCGAGAGCGGCAAGTCCACC
TTCCTCAAGCAGATGCGCATCATCCACGGCCGGGAGTTCGACCAGAAGGCGCTGCTGGAGTTCCGCGACA
CCATCTTCGACAACATCCTTAAGGGTTCGAGGGTTCTTGTGGACGCTCGAGACAAGCTCGGCATTCCCTG
GCAGCACTCTGAGAACGAGAAGCACGGGATGTTTCTGATGGCCTTCGAGAACAAGGCAGGGCTGCCTGTG
GAGCCTGCCACCTTCCAGCTCTACGTGCCAGCCCTGAGTGCCCTCTGGAGAGACTCGGGGATCAGGGAAG
CCTTCAGCCGCAGAAGCGAGTTCCAGCTGGGTGAATCAGTGAAGTACTTCCTGGATAACTTGGACCGGAT
TGGCCAGCTGAACTACTTCCCCAGTAAGCAAGACATCCTGCTGGCTAGAAAGGCCACCAAGGGAATCGTG
GAACATGACTTCGTTATAAAGAAAATCCCATTTAAGATGGTGGATGTGGGCGGCCAGAGGTCACAGCGCC
AGAAGTGGTTCCAGTGCTTCGACGGCATCACATCTATCCTGTTCATGGTGTCCTCGAGCGAGTATGACCA
GGTCCTCATGGAGGACAGGCGCACCAACCGGCTGGTGGAGTCCATGAACATCTTCGAGACCATCGTCAAC
AACAAGCTCTTCTTCAACGTCTCCATCATCCTCTTCCTCAACAAGATGGACCTCCTGGTGGAGAAGGTGA
AGTCTGTGAGCATTAAGAAGCACTTCCCAGATTTCAAGGGCGACCCGCACCGGCTGGAGGACGTCCAGCG
CTACCTGGTGCAGTGCTTCGACAGGAAGCGCAGGAACCGCAGCAAGCCCCTGTTCCACCACTTCACCACC
GCCATAGACACCGAGAACATCCGCTTCGTGTTTCATGCTGTGAAGGACACGATCCTGCAGGAGAACCTGA
AAGACATCATGCTGCAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Restriction Sites:	SgfI-MluI
ACCN:	NM_010302
Insert Size:	1140 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_010302.2, NP_034432.1
RefSeq Size:	1880 bp
RefSeq ORF:	1140 bp
Locus ID:	14673
UniProt ID:	P27600
Cytogenetics:	5 79.3 cM
Gene Summary:	Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems (PubMed:19151758, PubMed:21212405, PubMed:22609986). Activates effector molecule RhoA by binding and activating RhoGEFs (ARHGEF12/LARG) (By similarity). GNA12-dependent Rho signaling subsequently regulates transcription factor AP-1 (activating protein-1) (PubMed:19151758, PubMed:21212405). GNA12-dependent Rho signaling also regulates protein phosphatese 2A activation causing dephosphorylation of its target proteins (By similarity). Promotes tumor cell invasion and metastasis by activating RhoA/ROCK signaling pathway and up-regulating proinflammatory cytokine production (By similarity). Inhibits CDH1-mediated cell adhesion in process independent from Rho activation (By similarity). Together with NAPA promotes CDH5 localization to plasma membrane (By similarity). May play a role in the control of cell migration through the TOR signaling cascade (PubMed:22609986).[UniProtKB/Swiss-Prot Function]

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