

Product datasheet for **MC223612**

Gucy2d (NM_001130693) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gucy2d (NM_001130693) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gucy2d
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC223612 representing NM_001130693 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGGTCTGCAGCAGGGCTGTCACTTTGAAGGCCAGAAGTGGACAGCACCACACTGGAAGACCTGCC
TGCCCTGCCAGGGCCCGTGGAGACTCACTGTCACTCATCTGAAGACTGTCTCTTCCATATCAGTCCCTCTC
TGTGGTATTTGGAGTGTCTACTTTGGGCTGACTCCCTTCCCTGTTAGCATGGCAAGAGAGACCTTC
ACCCTTGGGGTGTCTGGTCCCTGGGACTGTGACCCCATCTTGGCCAGGCCCTCCCCAGCATAGCTACCC
AGCTGGCTGTAGATCAAGTTAATCAGGATGCCTCACTGCTGCCAGGCTCACAGTTGGATTCAAGGTCTC
CCCCACAGGCTGTGACACTCCTCATGCCCTGGCCACATTCGTGGCCACACAAGAACATAGTGGCTGCTTTT
GTAGGCCCTGTTAATCCTGGTCTGCTCAGCAGCAGCCCTGCTGGCCCAAGGCTGGGGCAAGTCCCTCT
TCTCTGGGCTGTGAAGCTCCAGAGGGAGGAGGTGACTTAGTGGCCACTTTACCTTCTGCGGCCGATGT
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GTAACCACAGCCCAGCAGCTGGCCACTGCTTTCAGGACTCATGGGCTGCCCATCGGACTGGTGACCTCTT
TGGGACCTGGAGAGAAGGGGGCCACAGAGTTTGAAGCAGCTCCACAGTGTTTCATGGTCTGAAAATTGT
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ATCGGATCTGCTGACATCTCAGGAGCTCACCTTCTCCAGCGGACCCCAAGCCGAGGAGGCCACATGT
GGACAGCGGCAGTGAGTCAAGAAGTGTGGTGGATGGTGGAAAGTCCACGGTCCGGTACCCAGGGGTCAGCA



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AGGAGCCTACCAGCCTTCTGGAGCACACCAACGTGGCCCTGTACCAGGGAGAGTGGGTATGGCTGAAGA
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CCTCCTTACTGTTGGATCTGATCCGAGGTTTGCAGTATCTGCACCATCGGCGCTTCCCCACGGGCGCT
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CGTGTCCAGGCGAGTCTGCATTAGGACCTGTGTGGCAGGTGTTGTGGGTCTCACCATGCCTCGGTA
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CAGTCAAAGCACTGTCCAGGCCCTGCTCAGCCTTGTGAAGGCTACAAAATTGATGTGAGAGGTCAGACT
GAACTGAAGGGGAAGGGCTTGGAGGAGACTACTGGCTGACAGGGAAGGTAGGATTCTGCAGACCCCTGC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-Mlul

ACCN:

NM_001130693

Insert Size:

3354 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_001130693.3](#), [NP_001124165.1](#)

RefSeq Size:

3633 bp

RefSeq ORF: 3354 bp

Locus ID: 14918

UniProt ID: [A0A0U1RPR8](#)

Cytogenetics: 7 53.86 cM

Gene Summary: Functions as an olfactory receptor activated by urine odorants, uroguanylin and guanylin and as well by the volatile semiochemicals carbon disulfide (CS₂) and carbon dioxide (CO₂) (PubMed:17724338, PubMed:17702944, PubMed:20637621). Has guanylate cyclase activity upon binding of the ligand (By similarity). Activation of GUCY2D neurons leads to the cGMP-dependent activation of the CNGB3 channels, membrane depolarization and an increase in action potential frequency (PubMed:17724338, PubMed:20637621). Signaling pathways activated by GUCY2D may trigger social behaviors such as acquisition of food preference (PubMed:20637621).[UniProtKB/Swiss-Prot Function]