

Product datasheet for **MG208853**

Glud1 (BC052724) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glud1 (BC052724) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Glud1
Synonyms:	A1118167; Gdh-X; Glud; Gludl
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208853 representing BC052724
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTACCGCGTCTGGGCGAAGCGCTGCTGCTGTCCCGCGCCGGCCCGTGCCTGGGCTCTCGCGCTG
 CAGACTCAGCCGCGCTGCTGGGCTGGGCGCCGGACAGCCCTCCGCCGCCCGCAACCCGGGCTCAGCC
 GGTGCGCCCGCGCCACTACAGCGAAGCGCCGCGACCGCGAAGACGACCCCAACTTCTTCAAGATGGT
 GAGGGTCTTCGACCGCGCGCCAGCATCGTAGAGGACAAGCTGGTGAAGACCTGAAGACCCGGGAGA
 GCGAGGAGCAGAAGCGGAACCGGTGCGCGGCATCCTGAGGATCATCAAGCCCTGCAACCATGTGTGAG
 CCTCTCCTTCCCATCCGGCGGACGACGGCTCCTGGGAGGTATCGAAGGCTACCGGGCCAGCACAGC
 CAGCACCAGCCCTGCAAGGGAGGTATCCGTTACAGCACTGACGTGAGTGGATGAAGTAAAAGCAC
 TGGCTTCCTTAATGACATAACAAGTGCCTGTGGTCGATGTACCGTTTGGAGGTGCTAAAGCAGCGTTAA
 GATCAACCCCAAGAACTATACAGATAATGAATTAGAAAAAATTACACGGAGTTCACTATGGAGCTGGCC
 AAGAAGGGTTTTATTGGTCTGGCATTGATGTGCCTGCCAGACATGAGCACGGGTGAGCGGGAGATGT
 CCTGGATCGCTGACACCTATGCCAGCACCATAGGGCACTATGATATCAATGCGCATGCCTGTGTTACTGG
 GAAACCCATCAGTCAAGGAGGCATCCACGGGCGCATCTCCGCTACTGGCCGGGTGTCTTCCATGGAATT
 GAAAACCTCATCAATGAGGCTTCTTACATGAGCATTTTAGGAATGACACCAGGCTTTGGCGATAAGACAT
 TTGTTGTTGAGGATTTGGTAATGTGGGCTGCACTCTATGAGATATTTACATCGTTTTGGTGCTAAATG
 TGTTGGTGTGGAGAGTCTGATGGGAGTATATGGAATCCGGATGGGATTGACCCAAAAGAACTGGAAGAC
 TTCAAGTTGCAACATGGATCAATTCTGGGCTTCCCAAAGCCAAGGTCTATGAAGGAAGCATCTTGAGG
 CTGACTGTGACATTCTGATTCTGCCGCGCAGCAGAGAAGCAGTTGACCAAATCCAATGCACCCAGAGTCAA
 AGCCAAGATCATTGCTGAAGGTGCCAATGGGCCAACCCTCCAGAGGCTGATAAGATTTTTCTGGAAAGA
 AACATCATGGTTATTCGATCTCTACTTAAATGCTGGAGGAGTAACAGTGTCTTACTTTGAGTGGCTAA
 AGAATCTAAATCATGTCAGCTACGGCCGATTGACCTTCAAATATGAAAGGACTCTAACTACCACTTGCT
 CATGTCTGTTCAAGAGAGTTTAGAGAGAAAGTTTGGAAAGCATGGTGGAACTATTCCTGTGGTCCCCACA
 GCAGAGTCCAGGACAGGATATCGGGTGCATCTGAGAAAGACATTGTGCACTCTGGCTTGGCCTACACAA
 TGGAGAGATCTGCCAGGCAAATTATGCGCACAGCCATGAAGTATAACCTGGGATTGGACCTGAGAACAGC
 TGCCTATGTCAATGCTATCGAGAAAGTCTTCAAGGTGTACAATGAAGCTGGTGTGACCTTACAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208853 representing BC052724
 Red=Cloning site Green=Tags(s)

MYRRLGEALLSRAGPAALGSAADSAALLGWARGQPSAAPQPGLTPVARRHYSEAAADREDDPNFFKMV
 EGFDRGASIVEDKLVEDLKTRESEEQKRNVRGILRIKPCNHVLSLSPFIRDDGSWEVIEGYRAQHS
 QHRTPCGGIRYSTDVSVDEVKALASLMTYKCAVVDVPPGGAKAGVKINPKNYTDNELEKITRRFTMELA
 KKGFIGPGIDVPAPDMSTGEREMSWIADTYASTIGHYDINAHACVTGKPISSQGGIHGRISATGRGVFHGI
 ENFINEASYMSILGMPGFGDKTFVVQGFVNVGLHSMRYLHRFGAKCVGVGESDGSIWNPDIKPELED
 FKLQHGSI LGFPKAKVYEGSILEADCDILIPAASEKQLTKSNAPRVKAKIIAEGANGPTTPEADKIFLER
 NIMVIPDLYLNAGGVTVSYFEWLKLNHVSYGRLTFKYERDSNYHLLMSVQESLERKFGKHGGTIPVVPT
 AEFQDRISGASEKDIVHSLAYTMERSARQIMRTAMKYNLGLDLRTAAYVNAIEKVFVYNEAGVTFT

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: BC052724

ORF Size: 1676 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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: [BC052724](#), [AAH52724](#)

RefSeq Size: 3045 bp

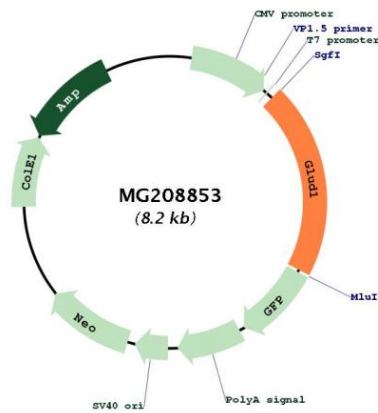
RefSeq ORF: 1676 bp

Locus ID: 14661

Cytogenetics: 14 20.8 cM

Gene Summary: Mitochondrial glutamate dehydrogenase that converts L-glutamate into alpha-ketoglutarate. Plays a key role in glutamine anaplerosis by producing alpha-ketoglutarate, an important intermediate in the tricarboxylic acid cycle. May be involved in learning and memory reactions by increasing the turnover of the excitatory neurotransmitter glutamate. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG208853