

## Product datasheet for **RR215683**

### Glud1 (NM\_012570) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Glud1 (NM_012570) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Glud1
Synonyms:	Ac2-281; Gdh1; Glud; Gludeha; MRG-2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR215683 representing NM\_012570  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTACCGCGTCTGGGCGAAGTCTGCTACTGTCCCGCGCCGGCCCGTGCCTGGGCTCTCGCGCTG  
 CAGACTCAGCCGCACTGCTGGGCTGGGCTCGCGGACAACCCTCTGCTGTCCCGCAACCCGGGCTCAGCC  
 GGTCCGCAAGCGCCACTACAGCGAAGCGGCCACCGACCGCAAGACGACCCCAACTTCTTCAAGATGGTG  
 GAGGGTCTTTCGACCGCGCGCCAGCATCGTGGAGGACAAGCTGGTGAAGACCTGAAGACCCGGGAGA  
 ACGAGGAGCAGAAGCGGAACCGAGTGCAGCGCATCCTGCGGATCATCAAGCCTTGAACCATGTGTTGAG  
 CCTCTCCTCCCATCCGGCGGACGACGGCTCCTGGGAGGTATCGAAGGCTACCGGGCCAGCACAGC  
 CAGCACCGCACGCCCTGCAAGGGAGGTATCCGGTACAGCACTGACGTGAGTGTGGATGAGGTGAAGCGC  
 TGGCGTCCCTAATGACCTACAAGTGTGAGTGGTGTGATGTGCCATTTGGAGGTGCTAAAGCAGCGTTAA  
 GATCAATCCCAAGAACTATACAGATAATGAATTAGAAAAGATTACACGAAGATTCACCATGGAGCTGGCA  
 AAGAAGGGTTTTATTGGTCTGGCATTGATGTGCCTGCCAGACATGAGCACGGGCGAGCGGGAGATGT  
 CCTGGATCGCTGACACCTATGCCAGCACCATAGGGCACTATGATATCAATGCACACGCTGCGTCACTGG  
 TAAACCCATCAGCCAAGGAGGCATCCACGGACGCATCTCCGCTACTGGCCGGGTGTTTTTCATGGGATT  
 GAGAAGTTCATCAATGAAGTTCCTACATGAGCATCTTAGGGATGACCCCGGGCTTGGCGATAAGACGT  
 TTGTTGTTGAGGATTTGGTAATGTGGGCTGCACTCTATGAGATATTTACATCGTTTTGGTGCTAAGTG  
 TGTTGGTGTGGAGAATCTGATGGGAGTATATGGAATCCAGATGGTATTGACCCAAAAGAACTGGAAGAT  
 TTCAAGTTGCAACATGGATCAATTCTGGCTTCCCAAAGCCAAGGTCTATGAAGGAAGCATCTGGAGG  
 CTGACTGCGCATTTTAAATCCCTGCAGCCAGCAGAAGCAGTTGACCAAATCCAATGCACCCAGCATAA  
 AGCCAAGATCATTGCTGAAGGAGCCAATGGCCCAACCACTCCAGAGCCGATAAGATTTTCTAGAAAGA  
 AACATCATGGTTATTCCAGATCTCTACCTGAATGCTGGAGGAGTACAGTATCTTACTTTGAGTGGCTAA  
 AGAATCTAAATCACGTCAGTATGGCCGATTGACCTTCAAATATGAAAGGACTCGAACTACCACTTGCT  
 CATGTCCGTTCAAGAGAGTTTAGAGAGAAAGTTTGGAAAGCACGGCGGACTATCCCTGTGGTCCCCACA  
 GCAGAGTCCAGGACAGAATATCGGGTGCATCTGAGAAAGACATCGTGCCTCTGGCTTGGCTACACAA  
 TGGAGCGATCTGCCAGGCAAATTATGCGCACAGCCATGAAGTATAACCTGGGATTGGACCTGAGAACAGC  
 TGCTACGTCAATGCCATTGAGAAAGTCTCAAGGTGATAATGAGGCTGGCGTGACCTTCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR215683 representing NM\_012570  
 Red=Cloning site Green=Tags(s)

MYRRLGEVLLL SRAGPAALGSAADSALLGWARGQPSAVPQPGLTPVARRHYSEAATDREDDPNFFKMV  
 EFFFDRGASIVEDKLVEDLKTRENEEQKRNRVIRGILRIKPCNHVLSLSPFIRRDDGSWEVIEGYRAQHS  
 QHRTPKGGIRYSTDVSVEVKALASLMTYKCAVVDVPPFGAKAGVKINPKNYTDNELEKITRRFTMELA  
 KKGFIGPGIDVPAPDMSTGEREMSWIADTYASTIGHYDINAHACVTGKPISQGGIHGRISATGRGVFHGI  
 ENFINEASYMSILGMPGLGDKTFVVQFGNVGLHSMRYLHRFGAKCVGVGSDGSIWNPDI DPKELED  
 FKLQHGSI LGFPKAKVYEGSILEADCDILIPAASEKQLTKSNAPRVKAKIIAEGANGPTTPEADKIFLER  
 NIMVIPDLNAGGVTVSYFEWLKLNHVSYGRLTFKYERDSNYHLLMSVQESLERKFGKHGGTIPVPT  
 AEFQDRISGASEKDIVHSGLAYTMERSARQIMRTAMKYNLGLDLRTAAYVNAIEKVFKVYNEAGVTFT

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

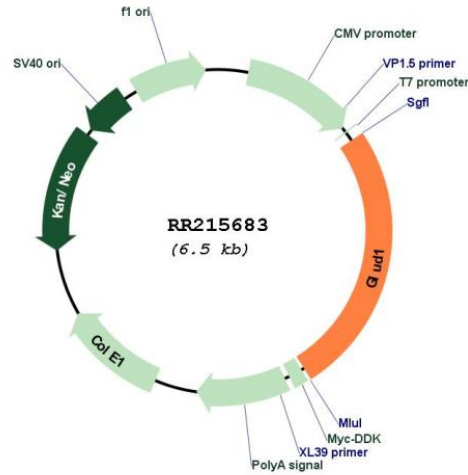
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



<b>ACCN:</b>	NM_012570
<b>ORF Size:</b>	1674 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_012570.2</a> , <a href="#">NP_036702.1</a>
<b>RefSeq Size:</b>	2998 bp
<b>RefSeq ORF:</b>	1677 bp
<b>Locus ID:</b>	24399
<b>UniProt ID:</b>	<a href="#">P10860</a>
<b>Cytogenetics:</b>	16p15
<b>MW:</b>	61.4 kDa
<b>Gene Summary:</b>	catalyzes the oxidative deamination of 1-glutamate to 2-oxoglutarate and may be a candidate memory-related gene [RGD, Feb 2006]