

Product datasheet for **RC212650**

GLS2 (NM_013267) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GLS2 (NM_013267) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GLS2
Synonyms:	GA; GLS; hLGA; LGA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC212650 representing NM_013267
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGCTCCATGAAGGCTCTGCAGAAGGCCTGAGCCGGGCTGGCAGTCACTGCGGGCAGGAGGCTGGG
 GTCACCCGAGCCGAGCCCTCTTGGCGGGGCGTCCGGCACCACTCAGTGAGGCCGCGCGCAGGG
 CAGAGAGACGCCACACAGCCACCAGCCGACGACCAAGGATCATGATTCATCAGAAAGTGGCATGCTGTCC
 CGCCTGGGTGATTTGCTCTTTTACACTATTGCTGAAGGACAGGAACGAATCCCTATCCACAAGTTCACCA
 CTGCACTAAAGGCCACTGGACTGCAGACATCAGATCCTCGGCTCCGAGACTGCATGAGCGAGATGCACCA
 CGTGGTCCAAGAGTCCAGTAGTGGTGGCCTCTGGACCGAGATCTCTCCGAAAGTGTGTGAGCAGCAAC
 ATTGTGCTCCTGACCCAGGCATTCGAAAGAAGTTTGTATTCTGATTTTGGAGAGTTCACGGGCCATG
 TGGATCGCATCTTTGAGGATGTCAAAGAGCTCACTGGAGGCAAAGTGGCAGCCTACATCCCTCAGCTGGC
 CAAGTCAAACCCAGACCTGTGGGGTGTCTCCCTGTGACTGTGGATGGTCAACGGCACTCTGTGGGCCAC
 ACAAGATCCCTTCTGCCTGCAGTCTGTGTGAAGCCCTCACCTATGCCATCTCCATAAGCACCCCTAG
 GCACTGACTACGTGCACAAGTTTGTGGGCAAAGAGCCAAGTGGCCTGCGCTACAACAAGCTCCCTCAA
 TGAGGAAGGAATCCCCATAACCCATGGTCAATGCTGGTGCATTGTTGTGAGTCCCTGATCAAGATG
 GACTGTAAACAAGCAGAGAAGTTTATTTTGTGTGCAGTATCTCAACAAAATGGCTGGGAATGAATACA
 TGGGTTTCAGCAATGCCACATCCAGTCAGAGAAGGAAACAGGGGATCGGAATATGCCATCGGCTATTA
 TCTCAAGGAAAAGAAGTCTTCCCTAAGGGGTGGACATGATGGCTGCCCTTGTCTCTACTTCCAGCTG
 TGTCTGTGGAGTCACTTGTGAATCAGGCAGTGTGATGGCAGCCACCCTCGCCAACGGTGGGATCTGCC
 CCATCACAGGCGAGAGTGTGCTGAGTGTGAAGCAGTGCAGCAACACCCTCAGCCTCATGCATTCCTCGG
 CATGTATGACTTCTCGCCAGTTTGCCTTCCAGTGGGCTGCCAGCCAAGTCAAGTGTATCAGGAGCC
 ATCCTCCTGGTGGTACCAATGTCATGGGAATGATGTGCCTGTACCCCAATTGGACAAGCTGGGGAACA
 GCCATAGGGGGACAGCTTCTGCCAGAAGTTGGTGTCTCTCTTCAATTTCCACAATGATGACAACCTGAG
 GCACTGTGCTCGGAAGTTAGACCCACGGCGTGAAGGGCAGAAATTCGGAACAAGACTGTGGTCAACCTG
 TTATTTGCTGCCTATAGTGGCGATGTCTCAGCTCTTCAAGGTTTGCCTTGTGAGCCATGGATGGAAC
 AGAAAGACTATGACTCGCGCACAGCTCTGCATGTTGCTGCAGTGAAGGACACATCGAAGTTGTTAAATT
 CCTGATCGAGGCTTCAAAGTGAATCCTTTTCCCAAGGACAGGTGGGCAACATTCCTGGATGATGCT
 GTGCAGTTCAACCATCTGGAGTGGTCAAACCTGCTTCAAGATTACCAGGACTCTACACACTCTCTGAAA
 CTCAGGCTGAGGACGAGCTGAGGCCCTGTCAAAGAGAAGTCTAGAAAGCATGGTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212650 representing NM_013267
 Red=Cloning site Green=Tags(s)

MRSMKALQKALSFRAGSHCGRGGWGHPSRSPLGGVVRHHLSEAAAQGRETPHSHQPQHGDHDSSESGMLS
 RLGDLLFYTIAEGQERIPHFKFTALKATGLQTSDPRLRDCMSEMHHVVQESSGGLLDRDLFRKCVSSN
 IVLLTQAFRKKFVIPDFEFTGHVDRI FEDVKELTGKVAAYIPQLAKSNPDLWGVS LCTVDGQRHSVGH
 TKIPFCLQSCVKPLTYAISTLGTDYVHKFVKGEPGLRYNKL SLNEEGIPHNPMVNAGAI VVSSLIKM
 DCNKA EKFDVFLQYLNKMAGNEYMGFSNATFQSEKETGDRNYAIGYYLKEKKCFPKGVDMMALDLYFQL
 CSVEVTCESGSVMAATLANGGICPITGESVLSAEAVRNTLSLMHSCGMYDFSGQFAFHVGLPAKSAVSGA
 ILLVVPNVMMCLSPPLDKLGNSHRGT SFCQKLVSLFNFHNYDNL RHCARKLDPREGAEIRNKTVVNL
 LFAAYS GDVSALRRFALSAMDMEQKDYSRTALHVA AAEHGHEVVKFLIEACKVNPFAKDRWGNIP LDDA
 VQFNHLEVVKLLQDYQDSYTLSETQAEAAA EALSKENLES MV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6482_a06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_013267

ORF Size: 1806 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: [NM_013267.4](#)

RefSeq Size: 2648 bp

RefSeq ORF: 1809 bp

Locus ID: 27165

UniProt ID: [Q9UI32](#)

Cytogenetics: 12q13.3

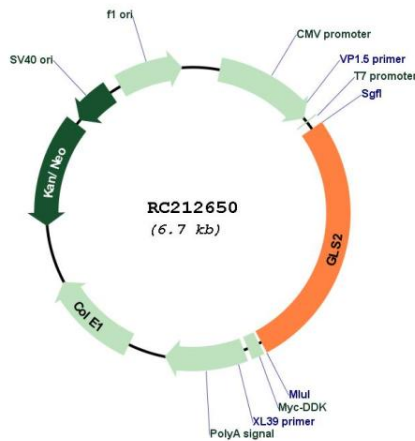
Domains: ANK, Glutaminase

Protein Pathways: Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, D-Glutamine and D-glutamate metabolism, Metabolic pathways, Nitrogen metabolism

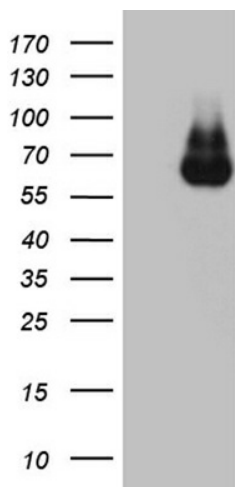
MW: 66.8 kDa

Gene Summary: The protein encoded by this gene is a mitochondrial phosphate-activated glutaminase that catalyzes the hydrolysis of glutamine to stoichiometric amounts of glutamate and ammonia. Originally thought to be liver-specific, this protein has been found in other tissues as well. Alternative splicing results in multiple transcript variants that encode different isoforms. [provided by RefSeq, Jul 2013]

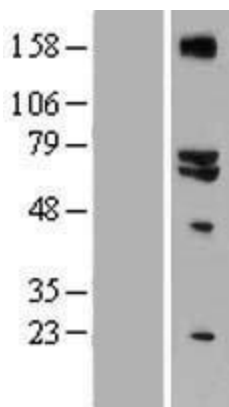
Product images:



Circular map for RC212650



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GLS2 (Cat# RC212650, 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-GLS2 (Cat# [TA809494])(1:2000). Positive lysates [LY415701] (100ug) and [LC415701] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415701]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212650 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).