OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC320897

Glutamine Synthetase (GLUL) (NM_001033056) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glutamine Synthetase (GLUL) (NM_001033056) Human Untagged Clone
Tag:	Tag Free
Symbol:	Glutamine Synthetase
Synonyms:	GLNS; GS; PIG43; PIG59
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>OriGene sequence for NM_001033056.1
GAAGAGCGGAGCGTGTGAGCAGTACTGCGGCCTCCTCTCCTCTCCTAACCTCGCTCTCGC
GGCCTACCTTTACCCGCCCGCCTGCTCGGCGACCAGAACACCTTCCACCATGACCACCTC
AGCAAGTTCCCACTTAAATAAAGGCATCAAGCAGGTGTACATGTCCCTGCCTCAGGGTGA
GAAAGTCCAGGCCATGTATATCTGGATCGATGGTACTGGAGAAGGACTGCGCTGCAAGAC
CCGGACCCTGGACAGTGAGCCCAAGTGTGTGGAAGAGTTGCCTGAGTGGAATTTCGATGG
CTCCAGTACTTTACAGTCTGAGGGTTCCAACAGTGACATGTATCTCGTGCCTGCTGCCAT
GTTTCGGGACCCCTTCCGTAAGGACCCTAACAAGCTGGTGTTATGTGAAGTTTTCAAGTA
CAATCGAAGGCCTGCAGAGACCAATTTGAGGCACACCTGTAAACGGATAATGGACATGGT
GAGCAACCAGCACCCCTGGTTTGGCATGGAGCAGGAGTATACCCTCATGGGGACAGATGG
GCACCCCTTTGGTTGGCCTTCCAACGGCTTCCCAGGGCCCCAGGGTCCATATTACTGTGG
TGTGGGAGCAGACAGAGCCTATGGCAGGGACATCGTGGAGGCCCATTACCGGGCCTGCTT
GTATGCTGGAGTCAAGATTGCGGGGACTAATGCCGAGGTCATGCCTGCCCAGTGGGAATT
TCAGATTGGACCTTGTGAAGGAATCAGCATGGGAGATCATCTCTGGGTGGCCCGTTTCAT
CTTGCATCGTGTGTGTGAAGACTTTGGAGTGATAGCAACCTTTGATCCTAAGCCCATTCC
TGGGAACTGGAATGGTGCAGGCTGCCATACCAACTTCAGCACCAAGGCCATGCGGGAGGA
GAATGGTCTGAAGTACATCGAGGAGGCCATTGAGAAACTAAGCAAGCGGCACCAGTACCA
CATCCGTGCCTATGATCCCAAGGGAGGCCTGGACAATGCCCGACGTCTAACTGGATTCCA
TGAAACCTCCAACATCAACGACTTTTCTGCTGGTGTAGCCAATCGTAGCGCCAGCATACG
CATTCCCCGGACTGTTGGCCAGGAGAAGAAGGGTTACTTTGAAGATCGTCGCCCCTCTGC
CAACTGCGACCCCTTTTCGGTGACAGAAGCCCTCATCCGCACGTGTCTTCTCAATGAAAC
CGGCGATGAGCCCTTCCAGTACAAAAATTAAGTGGACTAGACCTCCAGCTGTTGAGCCCC
TCCTAGTTCTTCATCCCACTCCAACTCTTCCCCCTCTCCCAGTTGTCCCGATTGTAACTC
AAAGGGTGGAATATCAAGGTCGTTTTTTTCATTCCATGTGCCCAGTTAATCTTGCTTTCT
TTGTTTGGCTGGGATAGAGGGGTCAAGTTATTAATTTCTTCACACCTACCCTCCTTTTTT
TCCCTATCACTGAAGCTTTTTAGTGCATTAGTGGGGAGGAGGGTGGGGAGACATAACCAC
TGCTTCCATTTAATGGGGTGCACCTGTCCAATAGGCGTAGCTATCCGGACAGAGCACGTT
TGCAGAAGGGGGACTCTTCTTCCAGGTAGCTGAAAGGGGAAGACCTGACGTACTCTGGTT
AGGTTAGGACTTGCCCTCGTGGTGGAAACTTTTCTTAAAAAGTTATAACCAACTTTTCTA
TTAAAAGTGGGAATTAGGAGAGAAGGTAGGGGTTGGGAATCAGAGAGAATGGCTTTGGTC
TCTTGCTTGTGGGACTAGCCTGGCTTGGGACTAAATGCCCTGCTCTGAACACGAAGCTTA
GTATAAACTGATGGATATCCCTACCTTGAAAGAAGAAAAGGTTCTTACTGCTTGGTCCTT
GATTTATCACACAAAGCAGAATAGTATTTTTATATTTAAATGTAAAGACAAAAAACTATA
TGTATGGTTTTGTGGATTATGTGTGTTTTGCTAAAGGAAAAAACCATCCAGGTCACGGGG
CACCAAATTTGAGACAAATAGTCGGATTAGAAATAAAGCATCTCATTTTGAGTAGAGAGC
AAGGGAAGTGGTTCTTAGATGGTGATCTGGGATTAGGCCCTCAAGACCCTTTTGGGTTTC
TGCCCTGCCCACCCTCTGGAGAAGGTGGGCACTGGATTAGTTAACAGACGACACGTTACT
AGCAGTCACTTGATCTCCGTGGCTTTGGTTTAAAAGACACACTTGTCCACATAGGTTTAG
AGATAAGAGTTGGCTGGTCAACTTGAGCATGTTACTGACAGAGGGGGTATTGGGGTTATT
TTCTGGTAGGAATAGCATGTCACTAAAGCAGGCCTTTTGATATTAAATTTTTTAAAAAGC
AAAATTATAGAAGTTTAGATTTTAATCAAATTTGTAGGGTTTCTAGGTAATTTTTACAGA
ATTGCTTGTTTGCTTCAACTGTCTCCTACCTCTGCTCTTGGAGGAGATGGGGACAGGGCT
GGAGTCAAAACACTTGTAATTTTGTATCTTGATGTCTTTGTTAAGACTGCTGAAGAATTA
TTTTTTTCTTTTATAATAAGGAATAAACCCCACCTTTATTCCTTCATTTCATCTACCATT
TTCTGGTTCTTGTGTTGGCTGTGGCAGGCCAGCTGTGGTTTTCTTTTGCCATGACAACTT
CTAATTGCCATGTACAGTATGTTCAAAGTCAAATAACTCCTCATTGTAAACAAACTGTGT
AACTGCCCAAAGCAGCACTTATAAATCAGCCTAACATAAGAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_001033056

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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001033056.1, NP_001028228.1
RefSeq Size:	3205 bp
RefSeq ORF:	1122 bp
Locus ID:	2752
UniProt ID:	P15104
Cytogenetics:	1q25.3
Protein Pathways:	Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways, Nitrogen metabolism
Gene Summary:	The protein encoded by this gene belongs to the glutamine synthetase family. It catalyzes the synthesis of glutamine from glutamate and ammonia in an ATP-dependent reaction. This protein plays a role in ammonia and glutamate detoxification, acid-base homeostasis, cell signaling, and cell proliferation. Glutamine is an abundant amino acid, and is important to the biosynthesis of several amino acids, pyrimidines, and purines. Mutations in this gene are associated with congenital glutamine deficiency, and overexpression of this gene was observed in some primary liver cancer samples. There are six pseudogenes of this gene found on chromosomes 2, 5, 9, 11, and 12. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014] Transcript Variant: This variant (3) differs in the 5' UTR compared to variant 1. Both variants 1, 2 and 3 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.