

Product datasheet for **SC319136**

Glutathione Synthetase (GSS) (NM_000178) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glutathione Synthetase (GSS) (NM_000178) Human Untagged Clone
Tag:	Tag Free
Symbol:	Glutathione Synthetase
Synonyms:	GSHS; HEL-S-64p; HEL-S-88n
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_000178.2
 ACGAGGGAGGCCCGCCCCCTGAGCCTGGGTAGCGGCGCGAGGGCCGGGAGAACCGTTCCG
 CCGAGGAAAGGCGAACTAGTGTGGGATGGCCACCAACTGGGGGAGCCTCTTGCAGGATA
 AACAGCAGCTAGAGGAGCTGGCACGGCAGGCCGTGGACCGGGCCCTGGCTGAGGGAGTAT
 TGCTGAGGACCTCACAGGAGCCACTTCCTCGGAGGTGGTGAAGCTATGCCCCATTACGC
 TCTTCCCCTCACTGGTCCCCAGTGCCCTGCTGGAGCAAGCCTATGCTGTGCAGATGGACT
 TCAACCTGCTAGTGGATGCTGTGACGCCAGAACGCTGCCTTCCTGGAGCAAACCTTTCCA
 GCACCATCAAACAGGATGACTTTACCGCTCGTCTCTTTGACATCCACAAGCAAGTCTTAA
 AAGAGGGCATTGCCCAGACTGTGTTCTGGGCCTGAATCGCTCAGACTACATGTTCCAGC
 GCAGCGCAGATGGCTCCCCAGCCCTGAAACAGATCGAAATCAACACCATCTCTGCCAGCT
 TTGGGGGCTGGCTCCCGGACCCAGCTGTGCACCGACATGTTCTCAGTGTCTGAGTA
 AGACCAAAGAAGCTGGCAAGATCCTCTAATAATCCCAGCAAGGGACTGGCCCTGGGAA
 TTGCCAAAGCCTGGGAGCTACGGCTCACCAATGCTCTGGTGTACTGATTGCTCAAG
 AGAAGGAAAGAAACATATTTGACCAGCGTGCCATAGAGAATGAGCTACTGGCCAGGAACA
 TCCATGTGATCCGACGAACATTTGAAGATATCTCTGAAAAGGGTCTCTGGACCAAGACC
 GAAGGCTGTTTGTGGATGGCCAGGAAATTGCTGTGGTTTACTTCCGGGATGGCTACATGC
 CTCGTCAGTACAGTCTACAGAATTGGGAAGCACGTCTACTGCTGGAGAGGTCACATGCTG
 CCAAGTGCCAGACATTGCCACCCAGCTGGCTGGGACTAAGAAGGTGCAGCAGGAGCTAA
 GCAGGCCGGGCATGCTGGAGATGTTGCTCCCTGGCCAGCCTGAGGCTGTGGCCCGCTCC
 GCGCCACCTTTGCTGGCCTCTACTCACTGGATGTGGGTGAAGAAGGGGACCAGGCCATCG
 CCGAGGCCCTTGTGCCCTAGCCGTTTGTGCTAAAGCCCCAGAGAGAGGGTGGAGGTA
 ACAACCTATATGGGGAGGAAATGGTACAGGCCCTGAAACAGCTGAAGGACAGTGAGGAGA
 GGGCCTCTACATCCTCATGGAGAAGATCGAACCTGAGCCTTTTGAGAATTGCTGCTAC
 GGCTGGCAGCCCTGCCGAGTGGTCCAGTGCAATTTTCAGAGCTGGGCATCTTTGGGGTCT
 ATGTCAGGCAGGAAAAGACACTCGTGATGAACAAGCACGTGGGGCATCTACTTGAACCA
 AAGCCATCGAGCATGCAGATGGTGGTGTGGCAGCGGGAGTGGCAGTCTGGACAACCCAT
 ACCCTGTGTGAGGGCACAACCAGGCCACGGACCTTCTATCCTCTGTATTTGTCATTCTCT
 CTCCTAGCCCTCCTGAGGGGTATCCTCCTAAAGACCTCCAAAGTTTTTATGGAAGGGTAA
 TACTGGTACCTTCCCCAGCTTCCATCTGAGGACCAGAAAAGTTGTGTCTCCCTTAGA
 TGAGATCTAGACGCCCCAAATCCTTGAGATGTGGGTATAGCTCAGGGTAAGCTGCTCTG
 AGGTAAAGGTCCATGAACCTGCCCACTCCTGTGAGCCCTCATCAGCCTTTTCAGCAG
 GTTCCAGTGCCTGACTTGGGATAGGACTGAGTGGTAGGAGGAGGGGAGTGGAGGGGCAT
 AGCCTTCCCTAATTCTGCCTTAAATAAAACTGCATTGCTGATCAAAAAAAAAAAAAA
 AAAA

Restriction Sites: Please inquire

ACCN: NM_000178

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_000178.2](#), [NP_000169.1](#)

RefSeq Size: 1918 bp

RefSeq ORF: 1425 bp

Locus ID: 2937

UniProt ID: [P48637](#)

Cytogenetics: 20q11.22

Domains: GSH_synthase, GSH_synth_ATP

Protein Families: Druggable Genome

Protein Pathways: Glutathione metabolism, Metabolic pathways

Gene Summary: Glutathione is important for a variety of biological functions, including protection of cells from oxidative damage by free radicals, detoxification of xenobiotics, and membrane transport. The protein encoded by this gene functions as a homodimer to catalyze the second step of glutathione biosynthesis, which is the ATP-dependent conversion of gamma-L-glutamyl-L-cysteine to glutathione. Defects in this gene are a cause of glutathione synthetase deficiency. [provided by RefSeq, Jul 2008]