

Product datasheet for **SC324364**

CBS (NM_000071) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CBS (NM_000071) Human Untagged Clone
Tag:	Tag Free
Symbol:	CBS
Synonyms:	CBSL; HIP4
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_000071.1
 CAGCCGCTCGCCCTCTTTTCCATGTATCCGTCCAGGATCCCATGACAGATTCTGTTGTC
 ACGTCTCCTTACAGAGTTTGAGCGGTGCTGAACTGTCAGCACCATCTGTCCGGTCCCAGC
 ATGCCCTTCTGAGACCCCCAGGCAGAAGTGGGGCCACAGGCTGCCCCACCGCTCAGGG
 CCACACTCGGCGAAGGGGAGCCTGGAGAAGGGTCCCCAGAGGATAAGGAAGCCAAGGAG
 CCCCTGTGGATCCGGCCCGATGCTCCGAGCAGGTGCACCTGGCAGCTGGGCCGGCCTGCC
 TCCGAGTCCCCACATACCACACTCCCCGGCAAATCTCCAAAATCTTGCCAGATATT
 CTGAAGAAAAATCGGGGACACCCCTATGGTCAGAATCAACAAGATTGGGAAGAAATTCGGC
 CTGAAGTGTGAGCTCTTGCCCAAGTGTGAGTTCTTCAACGCGGGCGGGAGCGTGAAGGAC
 CGCATCAGCCTGCGGATGATTGAGGATGCTGAGCGCGACGGGACGCTGAAGCCCGGGGAC
 ACGATTATCGAGCCGACATCCGGGAACACCGGGATCGGGCTGGCCTGGCTGCGGCAGTG
 AGGGGCTATCGCTGCATCATCGTATGCCAGAGAAGATGAGCTCCGAGAAGGTGGACGTG
 CTGCGGGCACTGGGGCTGAGATTGTGAGGACGCCACCAATGCCAGGTTGACTCCCCG
 GAGTCACACGTGGGGTGGCCTGGCGGTGAAGAACGAAATCCCCAATTCTCACATCTA
 GACCAGTACCGCAACGCCAGCAACCCCTGGCTACTACGACACCACCGTGATGAGATC
 CTGCAGCAGTGTGATGGGAAGCTGGACATGCTGGTGGCTTCAGTGGGCACGGGCGGCACC
 ATCACGGGCAATTGCCAGGAAGCTGAAGGAGAAGTGTCTGGATGCAGGATCATTGGGGTG
 GATCCCGAAGGGTCCATCCTCGCAGAGCCGGAGGAGCTGAACCAGACGGAGCAGACAACC
 TACGAGGTGGAAGGGATCGGCTACGACTTCATCCCCACGGTGTGGACAGGACGGTGGTG
 GACAAGTGGTTCAAGAGCAACGATGAGGAGGCGTTACCTTTGCCCGCATGCTGATCGCG
 CAAGAGGGGCTGCTGTGCGGTGGCAGTGTGGCAGCACGGTGGCGGTGGCCGTGAAGGCC
 GCGCAGGAGCTGCAGGAGGGCCAGCGCTGCGTGGTTCATTCTGCCGACTCAGTCCGGAAC
 TACATGACCAAGTTCCTGAGCGACAGTGTGCTGCAAGAAGGGTCTTCTGAAGGAGAG
 GACCTCACGGAGAAGAAGCCCTGGTGGTGGCACCTCCGTGTTCAAGGAGCTGGGCCGTCA
 GCCCGCTGACCGTGTCTCCGACCATCACCTGTGGGCACACCATCGAGATCCTCCGGGAG
 AAGGGCTTCGACCAGGCGCCCGTGGTGGATGAGGCGGGGTAATCCTGGGAATGGTGACG
 CTTGGGAACATGCTCTCGTCCCTGCTTGGCGGGAAGGTGCAGCCGTGAGACCAAGTTGGC
 AAAGTCATCTACAAGCAGTTCAAACAGATCCGCCTCACGGACACGCTGGGCAGGCTCTCG
 CACATCTGGAGATGGACACTTCGCCCTGGTGGTGCACGAGCAGATCCAGTACCACAGC
 ACCGGGAAGTCCAGTCAAGCGCAGATGGTGTTCGGGGTGGTACCGCCATTGACTTGCTG
 AACTTCGTGGCCGCCAGGAGCGGGACCAGAAGTGAAGTCCGGAGAGCTGGCGGTGCGG
 AGCGGGCCCGCCACCCTTGCCCACTTCTCCTTCGCTTTCCTGAGCCCTAAACACACGCGT
 GATTGGTAACTGCCTGGCACCGTTATCCCTGCAGACGGCACAGAGCATCCGTCTCCCTC
 GTTAACACATGGCTTCTAAATGGCCCTGTTTACGGCCTATGAGATGAAATATGTGATTT
 TCTCTAATGTAATTCCTCTTAGGATGTTTACCAAGGAAATATTGAGAGAGAAGTCGGC
 CAGGTAGGATGAACACAGGCAATGACTGCACAGAGTGGATTAAGGCAAAAAGAGAGAAGA
 GTCCAGGAAGGGGCGGGGAGAAGCCTGGGTGGCTCAGCATCCTCCACGGGCTGCGCCGTC
 TGCTCGGGGCTGAGCTGGCGGGAGCAGTTTGGCTGTTGGGTTTTTAATTGAGATGAAA
 TTCAAATAACCTAAAAATCAATCACTTGAAGTGAACAATCAGCGGCATTTAGTACATCC
 AGAAAGTTGTGTAGGCACCACCTCTGTACGTTCTGGAACATTCTGTCATACCCCGTGA
 AGCAATCATTTCCCTCCCGTCTTCTCCTCCCTGGCAACTGCTGATCGACTTTGTGTC
 TCTGTTGTCTAAAATAGGTTTTCCCTGTTCTGGACATTTATATAAATGGAATCACACAA
 AAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_000071

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:	<ol style="list-style-type: none">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_000071.1 , NP_000062.1
RefSeq Size:	2544 bp
RefSeq ORF:	1656 bp
Locus ID:	875
UniProt ID:	P35520
Cytogenetics:	21q22.3
Domains:	CBS, PALP
Protein Families:	Druggable Genome
Protein Pathways:	Cysteine and methionine metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Selenoamino acid metabolism
Gene Summary:	The protein encoded by this gene acts as a homotetramer to catalyze the conversion of homocysteine to cystathionine, the first step in the transsulfuration pathway. The encoded protein is allosterically activated by adenosyl-methionine and uses pyridoxal phosphate as a cofactor. Defects in this gene can cause cystathionine beta-synthase deficiency (CBS), which can lead to homocystinuria. This gene is a major contributor to cellular hydrogen sulfide production. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Feb 2016]