

Product datasheet for **MG218519**

Cbs (NM_178224) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cbs (NM_178224) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cbs
Synonyms:	AI047524; AI303044; HIP4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG218519 representing NM_178224
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCTTCAGGGACATCCCAGTGTGAAGATGGCTCTGCTGGGGCTTCCAGCACTTGGACATGCACTCAG
 AAAAGAGACAACCTGGAGAAGGGCCCTCAGGGGACAAGGATCGAGTCTGGATCCGGCCTGATACCCAAG
 CAGATGTACCTGGCAGCTGGGCAGGGCCATGGCGGACTCCCCACATTATCACACAGTGTGACCAATCC
 CCCAAAATTTTACCAGATATTCTGAGGAAAATTGGGAACACCCCTATGGTCAGAATCAACAAGATCTCAA
 AGAATGCCGGTCTCAAGTGTGAGCTCTTGGCCAAGTGTGAGTTCTTCAATGCGGGTGGGAGTGTGAAGGA
 CCGCATCAGCCTTCGGATGATCGAAGATGCTGAGCGAGCTGAAACTTGAAGCCTGGAGACACTATCATT
 GAGCCAATTCTGGCAACACAGGATCGGGCTGGCTCTGGCTGCTGCAGTGAAGGGCTATCGCTGCATTA
 TCGTGATCCGGAGAAGATGAGTATGGAGAAGGTGGATGTCTGCGGGCTCTGGGAGCCGAGATTGTGAG
 GACGCCACCAATGCCAGATTTGATTCCCCGAGTCCCACGTGGGAGTGGCATGGCGACTGAAGAACGAA
 ATCCCTAATTCTCACATTCTGGACCAGTACCGCAATGCCAGCAACCCTTTGGCACACTACGATGACACCG
 CCGAGGAGATCCTGCAGCAGTGTGACGGGAAGCTGGATATGCTGGTGGCTTCAGCAGGCACGGGTGGCAC
 CATCACAGGGATCGCCAGAAAGCTGAAGGAGAAGTGCCCTGGCTGTAAAATCATCGGTGTGATCCTGAA
 GGCTCCATCCTTGCAGGAGCCGAGGAGCTGAACCAGACGGAGCAAACAGCCTATGAGGTGGAAGGGATTG
 GCTACGACTTCATCCCGACAGTCTGGACAGGGCGGTGGTGGATAAGTGGTTCAAGAGCAACGATGAAGA
 TTCCTTCGCCCTTGGCCGCATGCTCATCGCACAGGAAGGACTGCTATGTGGTGAAGCTCTGGCAGCGCC
 ATGGCTGTGGCTGTGAAGGCTGCCCGGAGCTGCAGGAAGGGCAGCGCTGTGTGGTATCCTGCCTGACT
 CTGTGCGGAACATACATGTCCAAGTTCCTGAGTGACAAATGGATGCTGCAGAAAGTTTCATGAAAGGGA
 GCTCTCAGTGAAGAGGCCCTGGTGGTGGCTCTGCGTGTCAAGAGCTGAGCCTGTGCGCCCGCTGACC
 GTGTTGCCACGGTACCTGTGAGGACACCATCGCCATCCTCCGGGAGAAGGGTTTTGACCAGGCACCTG
 TGGTCAACGAGTCTGGGGCCATCCTAGGGATGGTACCCTCGGGAACATGCTGTGATCCTGCTGGCTGG
 AAAGGTGCGGCCATCAGACGAAGTCTGCAAAGTCTCTACAAGCAGTTCAAACCGATCCACCTGACCGAC
 ACGCTGGGCACACTCTCTCACATCCTGGAGATGGACCCTTCGCCCTGGTGGTCCACGAGCAGATCCAAT
 ACTGCAGCAATGGCATGTCCAGCAAGCAGCAGATGGTGTGGGGTTGTCACCTGCCATTGACCTGCTAAA
 CTTCTGTGGCAGCCGTGAGCAGACCCAGACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG218519 representing NM_178224
 Red=Cloning site Green=Tags(s)

MPSGTSQCEDGSAGGFQHLDMHSEKRQLEKGPSGDKDRVWIRPDTPSRCTWQLGRAMADSPHYHTVLT
 PKILPDILRKIGNTPMVRINKISKNAGLKCELLAKCEFFNAGGSVKDRISLRMIEDAERAGNLKPGDTII
 EPTSGNTGIGLALAAAVKGYRCIIVMPEKMSMEKVDVLRALGAEIVRPTNARFDSPESHVGVAVRLKNE
 IPNSHILDQYRNASNPLAHYDDTAEEILQQCDGKLDMLVASAGTGGTITGIARKLKEKCPGCKIIGVDPE
 GSILAEPEELNQTEQTAYEVEGIGYDFIPTVLDRAVVDKWFKSNDSDFAFARMLIAQEGLLCGSSGSA
 MAVAVKAARELQEGQRCVVILPDSVRNYMSKFLSDKWMLQKGFMEELSVKRPWWWRLRVQELSLAPLT
 VLPVTVCEDTIAILREKGFQAPVVNESGAILGMVTLGNMLSSLLAGKVRPSDEVCKVLKQFKPIHLTD
 TLGTLSHILEMDHFALVVHEIQYCSNGMSSKQMVFGVVTAIDLLNFVAAREQTQT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

ACCN:	NM_178224
ORF Size:	1641 bp
OTI Disclaimer:	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:	<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_178224.3 , NP_835742.1
RefSeq Size:	2461 bp
RefSeq ORF:	1644 bp
Locus ID:	12411
UniProt ID:	Q91WT9
Cytogenetics:	17 16.93 cM
Gene Summary:	Hydro-lyase catalyzing the first step of the transsulfuration pathway, where the hydroxyl group of L-serine is displaced by L-homocysteine in a beta-replacement reaction to form L-cystathionine, the precursor of L-cysteine. This catabolic route allows the elimination of L-methionine and the toxic metabolite L-homocysteine (By similarity). Also involved in the production of hydrogen sulfide, a gasotransmitter with signaling and cytoprotective effects on neurons (By similarity).[UniProtKB/Swiss-Prot Function]