

Product datasheet for **MR219119**

Cbs (NM_144855) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cbs (NM_144855) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cbs
Synonyms:	AI047524; AI303044; HIP4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR219119 representing NM_144855
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCTTCAGGGACATCCCAGTGTGAAGATGGCTCTGCTGGGGCTTCCAGCACTTGGACATGCACTCAG
 AAAAGAGACAACCTGGAGAAGGGCCCTCAGGGGACAAGGATCGAGTCTGGATCCGGCCTGATACCCCAAG
 CAGATGTACTTGGCAGCTGGGCAGGGCCATGGCGGACTCCCCACATTATCACACAGTGTGACCAATCC
 CCCAAAATTTTACCAGATATTCTGAGGAAAATTGGGAACACCCCTATGGTCAGAATCAACAAGATCTCAA
 AGAATGCCGGTCTCAAGTGTGAGCTCTTGGCCAAGTGTGAGTTCTTCAATGCGGGTGGGAGTGTGAAGGA
 CCGCATCAGCCTTCGGATGATCGAAGATGCTGAGCGAGCTGAAACTTGAAGCCTGGAGACACTATCATT
 GAGCCAATTCTGGCAACACAGGGATCGGGCTGGCTCTGGCTGCTGCAGTGAAGGGCTATCGCTGCATTA
 TCGTGATCCGGAGAAGATGAGTATGGAGAAGGTGGATGTCTGCGGGCTCTGGGAGCCGAGATTGTGAG
 GACGCCACCAATGCCAGATTTGATTCCCCGAGTCCCACGTGGGAGTGGCATGGCGACTGAAGAACGAA
 ATCCCTAATTCTCACATTCTGGACCAGTACCGCAATGCCAGCAACCCCTTGGCACACTACGATGACACCG
 CCGAGGAGATCCTGCAGCAGTGTGACGGGAAGCTGGATATGCTGGTGGCTTCAGCAGGCACGGGTGGCAC
 CATCACAGGGATCGCCAGAAAGCTGAAGGAGAAGTGCCCTGGCTGTAAAATCATCGGTGTCGATCCTGAA
 GGCTCCATCCTTGCAGGAGCCGAGGAGCTGAACCAGACGGAGCAAACAGCCTATGAGGTGGAAGGGATTG
 GCTACGACTTCATCCCGACAGTCTGGACAGGGCGGTGGTGGATAAGTGGTTCAAGAGCAACGATGAAGA
 TTCCTTCGCCCTTGGCCGCATGCTCATCGCACAGGAAGGACTGCTATGTGGTGAAGCTCTGGCAGCGCC
 ATGGCTGTGGCTGTGAAGGCTGCCCGGAGCTGCAGGAAGGGCAGCGCTGTGTGGTATCCTGCCTGACT
 CTGTGCGGAACATACATGTCCAAGTCTCTGAGTGACAAATGGATGCTGCAGAAAGTTTCATGAAAGAGGA
 GCTCTCAGTGAAGAGCCCTGGTGGTGGCTCTGCGTGTCAAGAGCTGAGCCTGTGCGCCCGCTGACC
 GTGTTGCCACGGTACCTGTGAGGACACCATCGCCATCCTCCGGGAGAAGGGTTTTGACCAGGCACCTG
 TGGTCAACGAGTCTGGGGCCATCCTAGGGATGGTACCCTCGGGAACATGCTGTCATCCCTGCTGGCTGG
 AAAGGTGCGGCCATCAGACGAAGTCTGCAAAGTCTCTACAAGCAGTTCAAACCGATCCACCTGACCGAC
 ACGCTGGGCACACTCTCTCACATCCTGGAGATGGACCCTTCGCCCTGGTGGTCCACGAGCAGATCCAAT
 CACGAGACCAGGCTGGTCAAGAGTGGTGGGGGGCCACAGACTGCAGCAATGGCATGTCCAGCAAGCA
 GCAGATGGTGTGGGGTGTCACTGCCATTGACCTGCTAAACTTCGTGGCAGCCCGTGAGCAGACCCAG
 ACA

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR219119 representing NM_144855
 Red=Cloning site Green=Tags(s)

MPSGTSQCEDGSAGGFQHLDMHSEKRQLEKGPSGDKDRVWIRPDTPSRCTWQLGRAMADSPHYHTVLT
 PKILPDILRKIGNTPMVRINKISKNAKLCELLAKCEFFNAGGSVKDRISLRMIEDAERAGNLKPGDTII
 EPTSGNTGIGLALAAAVKGYRCIIVMPEKMSMEKVDVLRALGAEIVRTPTNARFDSPESHVGVAVRLKNE
 IPNSHILDQYRNASNPLAHYDDTAEEILQQCDGKLDMLVASAGTGGTITGIARKLKEKCPGCKIIGVDPE
 GSILAEPEELNQTEQTAYEVEGIGYDFIPTVLDRAVVDKWFKSNDEDSFAFARMLIAQEGLLCGSSGSA
 MAVAVKAARELQEGQRCVVILPDSVRNYMSKFLSDKWMLQKGFMEELSVKRPWWWRLRVQELSLAPLT
 VLPTVTCEDTIAILREKGFDAQPVVNESGAILGMVTLGNMLSSLLAGKVRPSDEVCKVLKQFKPIHLTD
 TLGTLSHILEMDHFALVHEQIQSRDQAWSGVVGPTDCSNGMSSKQMQMVFVVT AIDLLNFVAAREQTQ
 T

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

ACCN: NM_144855

ORF Size: 1683 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.

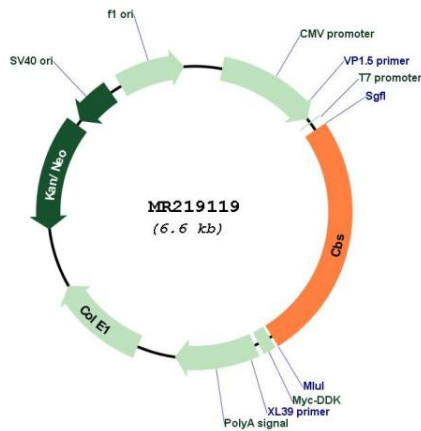
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_144855.3, NP_659104.1](#)
RefSeq Size: 2503 bp
RefSeq ORF: 1686 bp
Locus ID: 12411
UniProt ID: [Q91WT9](#)
Cytogenetics: 17 16.93 cM
MW: 62 kDa

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]

Product images:



Circular map for MR219119