

Product datasheet for **SC321558**

COMT (NM_000754) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: COMT (NM_000754) Human Untagged Clone
Tag: Tag Free
Symbol: COMT
Synonyms: HEL-S-98n
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC (PS100020)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000754.2
GGCTTCTGGGGCAGCTAGGGCTGCCCGCCGCGCTGCCTGCGCCGACCGGGGCGGGTCCA
GTCCCGGGCGGGCCGTGCGGGAGAGAAAATAACATCTGCTTTGCTGCCGAGCTCAGAGGA
GACCCCAGACCCCTCCCGCAGCCAGAGGGCTGGAGCCTGCTCAGAGGTGCTTTGAAGATG
CCGGAGGCCCGCCTCTGCTGTTGGCAGCTGTGTTGCTGGGCCTGGTGTGCTGTTGGTG
CTGCTGCTGCTTCTGAGGCACTGGGGCTGGGGCCTGTGCCTTATCGGCTGGAACGAGTTC
ATCCTGCAGCCCATCCACAACCTGCTCATGGGTGACACCAAGGAGCAGCGCATCCTGAAC
CATGTGCTGCAGCATGCGGAGCCCGGGAACGCACAGAGCGTGCTGGAGGCCATTGACACC
TACTGCGAGTAGAAGGAGTGGGCCATGAACGTGGGCGACAAGAAAGGCAAGATCGTGGAC
GCCGTGATTCAGGAGCACCAGCCCTCCGTGCTGCTGGAGCTGGGGCCTACTGTGGCTAC
TCAGCTGTGCGCATGGCCCGCCTGCTGTACCAGGGGCGAGGCTCATACCATCGAGATC
AACCCCGACTGTGCCCATCACCCAGCGGATGGTGGATTTGCTGGCATGAAGGACAAG
GTCACCCTTGTTGGTGGAGCGTCCCAGGACATCATCCCCAGCTGAAGAAGAAGTATGAT
GTGGACACACTGGACATGGTCTTCTCGACCACTGGAAGGACCGGTACCTGCCGGACACG
CTTCTCTTGGAGGAATGTGGCCTGCTGCGGAAGGGGACAGTGCTACTGGCTGACAACGTG
ATCTGCCAGGTGCGCCAGACTTCTAGCACACGTGCGCGGGAGCAGCTGCTTTGAGTGC
ACACACTACCAATCGTTCCTGGAATACAGGGAGGTGGTGGACGGCCTGGAGAAGGCCATC
TACAAGGGCCCAGGCAGCGAAGCAGGGCCCTGACTGCCCCCCCCGGCCCCCTCTCGGGC
TCTCTCACCCAGCCTGGTACTGAAGGTGCCAGACGTGCTCCTGCTGACCTTCTGCGGCTC
CGGGCTGTGTCCTAAATGCAAAGCACACCTCGGCCGAGGCTGCGCCCTGACATGCTAAC
CTCTCTGAACTGCAACACTGGATTGTTCTTTTTAAGACTCAATCATGACTTCTTTACTA
AAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire
ACCN: NM_000754



[View online »](#)

OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>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.</p>
Components:	<p>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).</p>
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:	<p>NM_000754.2, NP_000745.1</p>
RefSeq Size:	<p>1289 bp</p>
RefSeq ORF:	<p>816 bp</p>
Locus ID:	<p>1312</p>
UniProt ID:	<p>P21964</p>
Cytogenetics:	<p>22q11.21</p>
Protein Families:	<p>Druggable Genome, Transmembrane</p>
Protein Pathways:	<p>Metabolic pathways, Tyrosine metabolism</p>

Gene Summary:

Catechol-O-methyltransferase catalyzes the transfer of a methyl group from S-adenosylmethionine to catecholamines, including the neurotransmitters dopamine, epinephrine, and norepinephrine. This O-methylation results in one of the major degradative pathways of the catecholamine transmitters. In addition to its role in the metabolism of endogenous substances, COMT is important in the metabolism of catechol drugs used in the treatment of hypertension, asthma, and Parkinson disease. COMT is found in two forms in tissues, a soluble form (S-COMT) and a membrane-bound form (MB-COMT). The differences between S-COMT and MB-COMT reside within the N-termini. Several transcript variants are formed through the use of alternative translation initiation sites and promoters. [provided by RefSeq, Sep 2008]

Transcript Variant: This variant (1, also known as MB-COMT) represents the predominant transcript and encodes the longer isoform (MB-COMT). Variants 1, 2, 3, and 5 all encode isoform MB-COMT and may also make the shorter isoform S-COMT at a low level. MB-COMT is a membrane-bound protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.