

## Product datasheet for **SC320911**

### COMT (NM\_007310) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** COMT (NM\_007310) 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\_007310.1  
 GAAATAACATCTGCTTTGCTGCCGAGCTCAGAGGAGACCCAGACCCCTCCCGCAGCCAG  
 AGGGCTGGAGCCTGCTCAGAGGTGCTTTGAAGATGCCGGAGGCCCGCCTCTGCTGTTGG  
 CAGCTGTGTTGCTGGCCCTGGTGTCTGCTGGTGGTGTCTGCTGCTGCTTCTGAGGCACTGGG  
 GCTGGGGCCTGTGCCTTATCGGCTGGAACGAGTTCATCCTGCAGCCCATCCACAACCTGC  
 TCATGGGTGACACCAAGGAGCAGCGCATCCTGAACCACGTGCTGCAGCATGCGGAGCCCG  
 GGAACGCACAGAGCGTGTGGAGGCCATTGACACCTACTGCGAGCAGAAGGAGTGGGCCA  
 TGAACGTGGGCGACAAGAAAGGCAAGATCGTGGACGCCGTGATTGAGGAGCACCAGCCCT  
 CCGTGTCTGGAGCTGGGGCCTACTGTGGCTACTCAGCTGTGCGCATGGCCCGCCTGC  
 TGTACCAGGGGGCAGGCTGATCACCATCGAGATCAACCCGACTGTGCCGCCATCACCC  
 AGCGGATGGTGGATTTGCTGGCGTGAAGGACAAGGTACCCCTTGTGGTTGGAGCGTCCC  
 AGGACATCATCCCCAGCTGAAGAAGAAGTATGATGTGGACACTGGACATGGTCTTCC  
 TCGACCACTGGAAGGACCGGTACCTGCCGGACACGCTTCTCTTGGAGGAATGTGGCTGC  
 TGCGGAAGGGGACAGTGTACTGGCTGACAACGTGATCTGCCAGGTGCCCGAGACTTCC  
 TAGCACACGTGCGCGGGAGCAGCTGCTTTGAGTGCACACACTACCAATCGTTCCTGGAAT  
 ACAGGGAGGTGGTGGACGGCCTGGAGAAGGCCATCTACAAGGGCCAGGCAGCGAAGCAG  
 GGCCCTGACTGCCCCCGGCCCCCTCTCGGGCTCTCTACCCAGCCTGGTACTGAAG  
 GTGCCAGACGTGCTCCTGCTGACCTTCTGCGGCTCCGGGCTGTGTCCTAAATGCAAAGCA  
 CACCTCGGCCGAGGCCTGCGCCCTGACATGCTAACCTCTCTGAACTGCAACACTGGATTG  
 TTCTTTTTTAAGACTCAATCATGACTTCTTTACTAACACTGGCTAGCTATATTATCTTAT  
 ATACTAATATCATGTTTTAAAAATATAAAATAGAAATTAAGAATCTAAATATTTAGATAA  
 AAAAAAAAAAAAAA

**Restriction Sites:** Please inquire  
**ACCN:** NM\_007310



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<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	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.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_007310.1</a></u> , <u><a href="#">NP_009294.1</a></u>
<b>RefSeq Size:</b>	1067 bp
<b>RefSeq ORF:</b>	666 bp
<b>Locus ID:</b>	1312
<b>UniProt ID:</b>	<u><a href="#">P21964</a></u>
<b>Cytogenetics:</b>	22q11.21
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Tyrosine metabolism

**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 (4, also known as S-COMT) contains a shorter 5' UTR and a translation start site which lies 50 codons downstream compared to that of variant 1. The resulting isoform (S-COMT) is shorter at the N-terminus compared to isoform MB-COMT. S-COMT is a soluble 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.