

Product datasheet for **SC109094**

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:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC109094 sequence for NM_007310 edited (data generated by NextGen Sequencing) ATGGGTGACACCAAGGAGCAGCGCATCCTGAACCACGTGTCGAGCATGCGGAGCCCGGG AACGCACAGAGCGTGCTGGAGGCCATTGACACCTACTGCGAGCAGAAGGAGTGGGCCATG AACGTGGGCGACAAGAAAGGCAAGATCGTGGACGCCGTGATTCAGGAGCACCAGCCCTCC GTGCTGCTGGAGCTGGGGCCTACTGTGGCTACTCAGCTGTGCGCATGGCCCGCCTGCTG TCACCAGGGGCGAGGCTGATCACCATCGAGATCAACCCGACTGTGCCGCATCACCCAG CGGATGGTGGATTTGCTGGCGTGAAGGACAAGGTCACCCTTGTGGTTGGAGCGTCCCAG GACATCATCCCCAGCTGAAGAAGAAGTATGATGTGGACACACTGGACATGGTCTTCCTC GACCACTGGAAGGACCGGTACCTGCCGGACACGCTTCTCTGGAGGAATGTGGCCTGCTG CGGAAGGGGACAGTGCTACTGGCTGACAACGTGATCTGCCAGGTGCGCCAGACTTCCTA GCACACGTGCGCGGAGCAGCTGCTTTGAGTGCACACACTACCAATCGTTCTGGAATAC AGGGAGGTGGTGGACGGCCTGGAGAAGGCCATCTACAAGGGCCAGGCAGCGAAGCAGGG CCCTGA Clone variation with respect to NM_007310.2 258 c=>g



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_007310 unedited
 TATTTTGTAAATACGACTCACTATAGGGCGGCCCGAATTCGCACGAGGGCACAAGGCTG
 GCATTTCTGAACCTTGCCCTCTGCGAACACAAGGGGGCGATGGTGGCACTCCAAGCAA
 GGGCGTGTGGGTGCTGCAGGAGGAGCAGAGCACTGGCGCCCTCCCCTCCCGCCCTG
 CAGATGCCGGAGGCCCGCTCTGCTGTTGGCAGCTGTGTTGCTGGGCCTGGTGTGCTG
 GTGGTGTGCTGCTTCTGAGGCACTGGGGCTGGGGCCTGTGCCTTATCGGCTGGAAC
 GAGTTCATCCTGCAGCCATCCACAACCTGCTCATGGGTGACACCAAGGAGCAGCGCATC
 CTGAACCACGTGCTGCAGCATGCGGAGCCCGGAACGCACAGAGCGTGTGGAGGCCATT
 GACACCTACTGCGAGCAGAAGGAGTGGGCCATGAACGTGGGCGACAAGAAAGCAAGATC
 GTGGACGCCGTGATTCAGGAGCACCAGCCCTCCGTGCTGCTGGAGCTGGGGCCTACTGT
 GGCTACTCAGCTGTGCGCATGGCCCGCTGCTGTACCAGGGGCGAGGCTGATCACCATC
 GAGATCAACCCCGACTGTGCCCATCACCCAGCGGATGGTGGATTTGCTGGCGTGAAG
 GACAGGTACCCTTGTGGTTGGAGCGTCCAGGACATCATCCCCAGCTGAAGAAGAAGT
 ATGATGTGGACACTGGACATGGTCTTCTCGACCCTGGAAGGACCGTACCTGCCGNAC
 ACGCTTCTTTGGNAGAATGTGNTGCTGCNGAGGNGACAGTGTACTGGCTGANACGT
 GATCTGCCCCAGTGCAGACTTCTAGCACACGTGCGCGGGAGCAGT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_007310 unedited
 GGGCCGAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAATTTCTATT
 TTATATTTTTTAAACATGATATTAGTATATAAGATAATATAGCTAGCCAGTGTTAGTAAA
 GAAGTCATGATTGAGTCTTAAAAAAGAACAATCCAGTGTGTCAGTTCAAAGAGGTAGCA
 TGTCAGGGCGCAGGCCTCGGCCGAGGTGTGCTTTGCATTTAGGACACAGCCGGAGCCGC
 AAAAGGTCAGCAGGAGCAGTCTGGCACCTTCACTACCAGGCTGGGTGAAAGAGCCCGAG
 AGGGGGCCCGGGGGGGCAGTCAGGGCCCTGCTTCGCTGCCTGGGCCCTTGTAATGAGCC
 TTCTCCAGGCCGTCCACCACCTCCCTGTATTCCAGGAACGATTGGTAGTGTGTCACCTCA
 AAGCAGCTGCTCCCGCGCACGTGTGCTAGGAAGTCTGGCGCACCTGGGCAGATCACGTTG
 TCAGCCAGTAGCACTGTCCCCTTCCGCAGCAGGCCACATTCTCCAAGAGAAGCGTGTCC
 GGCAGGTACCGGTCTTCCAGTGGTTCGAGGAAGACCATGTCCAGTGTGTCCACATCATA
 TTCTTCTCAGCTGGGGATGATGTCTGNGACGCTCAACCACAAGGTGACCTGTCTCG
 TCACGCCAGCGAAATCCACCATCCGCTGGGTGATGGCGGCACAGTCGGGGTTGATCTCG
 ATGGTGATCAACCTCGCCCTTGGGACAGCAAGCGGGCCATGCGCACAGCTGAGTACCCA
 CATAGGCCCCCACTCCAGCACCCGGAAGGCTGTGCCTCTGAATACAGAGTCCACATCTTG
 CTTTTTGTGCGCCAGTTCATGGCCATTCTTCTGCTCCAGTAGGTGTAAGGCCTTCACACC
 CTTGGGCGTCCGGCTCCCATGCTGAAACGTGTTCCAGGACN

Restriction Sites:

NotI-NotI

ACCN:

NM_007310

Insert Size:

1280 bp

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).

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_007310.1](#), [NP_009294.1](#)

RefSeq Size: 1067 bp

RefSeq ORF: 666 bp

Locus ID: 1312

UniProt ID: [P21964](#)

Cytogenetics: 22q11.21

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: 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.