

Product datasheet for **RC204127**

COMT (NM_007310) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | COMT (NM_007310) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | COMT |
| Synonyms: | HEL-S-98n |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC204127 representing NM_007310 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGGTGACCAAGGAGCAGCGCATCCTGAACACGTGCTGCAGCATGCGGAGCCCGGGAACGCACAGA
GCGTGCTGGAGGCCATTGACACCTACTGCGAGCAGAAGGAGTGGGCCATGAACGTGGGCGACAAGAAAGG
CAAGATCGTGGACGCCGTGATTCAGGAGCACCAGCCCTCCGTGCTGCTGGAGCTGGGGCCCTACTGTGGC
TACTCAGCTGTGCGCATGGCCCGCCTGCTGTACCAGGGGCGAGGCTCATCACCATCGAGATCAACCCCG
ACTGTGCCGCCATCACCAGCGGATGGTGGATTCGCTGGCGTGAAGGACAAGGTCACCCCTGTGGTTGG
AGCGTCCCAGGACATCATCCCCAGCTGAAGAAGAAGTATGATGTGGACACACTGGACATGGTCTTCCTC
GACCACTGGAAGGACCGGTACCTGCCGGACACGCTTCTCTGGAGGAATGTGGCCTGCTGCGGAAGGGGA
CAGTGCTACTGGCTGACAACGTGATCTGCCCAGGTGCGCCAGACTTCCTAGCACACGTGCGCGGGAGCAG
CTGCTTTGAGTGACACACTACCAATCGTTCCTGGAATACAGGGAGGTGGTGGACGGCCTGGAGAAGGCC
ATCTACAAGGGCCAGGCAGCGAAGCAGGGCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204127 representing NM_007310
 Red=Cloning site Green=Tags(s)

MGDTKEQRILNHVLQHAEPGNAQSVLEAIDTYCEQKEWAMNVGDKKGKIVDAVIQEHQPSVLELGAYCG
 YSAVRMARLLSPGARLITIEINPDCAAITQRMVDFAGVKDKVTLVVGASQDIIPQLKKKYDVTLDVMVFL
 DHWKDRYLPDTLLLEECGLLRKGTVLLADNVICPGAPDFLAHVRGSSCFECTHYQSFLFYREVVDGLEKA
 IYKGPGEAGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja2536_b06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007310

ORF Size: 663 bp

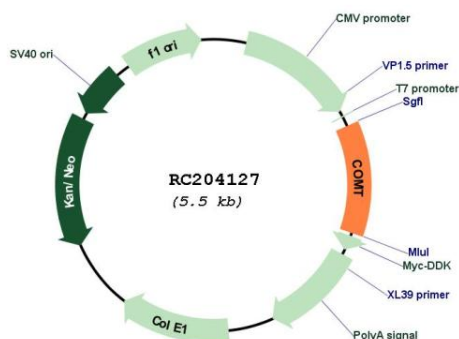
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

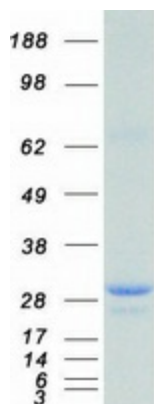
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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|-------------------------------|--|
| 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: | <u>NM_007310.3</u> |
| RefSeq Size: | 2035 bp |
| RefSeq ORF: | 666 bp |
| Locus ID: | 1312 |
| UniProt ID: | <u>P21964</u> |
| Cytogenetics: | 22q11.21 |
| Protein Families: | Druggable Genome, Transmembrane |
| Protein Pathways: | Metabolic pathways, Tyrosine metabolism |
| MW: | 24.9 kDa |
| Gene Summary: | <p>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]</p> |

Product images:



Circular map for RC204127



Coomassie blue staining of purified COMT protein (Cat# [TP304127]). The protein was produced from HEK293T cells transfected with COMT cDNA clone (Cat# RC204127) using MegaTran 2.0 (Cat# [TT210002]).