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Product datasheet for RG201275

COMT (NM_000754) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COMT (NM_000754) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	COMT
Synonyms:	HEL-S-98n
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG201275 representing NM_000754
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAACGTGGGCGACAAGAAAGGCAAGATCGTGGACGCCGTGATTCAGGAGCACCAGCCCTCCGTGCTGC
TGGAGCTGGGGGCCTACTGTGGCTACTCAGCTGTGCGCATGGCCCGCCTGCTGTCACCAGGGGCGAGGCT
CATCACCATCGAGATCAACCCCGACTGTGCCGCCATCACCCAGCGGATGGTGGATTTCGCTGGCATGAAG
GACAAGGTCACCCTTGTGGTTGGAGCGTCCCAGGACATCATCCCCCAGCTGAAGAAGAAGTATGATGTGG
ACACACTGGACATGGTCTTCCTCGACCACTGGAAGGACCGGTACCTGCCGGACACGCTTCTCTTGGAGGA
ATGTGGCCTGCTGCGGAAGGGGACAGTGCTACTGGCTGACAACGTGATCTGCCCAGGTGCGCCAGACTTC
CTAGCACACGTGCGCGGGAGCAGCTGCTTTGAGTGCACACACTACCAATCGTTCCTGGAATACAGGGAGG
TGGTGGACGGCCTGGAGAAGGCCATCTACAAGGGCCCAGGCAGCGAAGCAGGGCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG201275 representing NM_000754
Red=Cloning site Green=Tags(s)

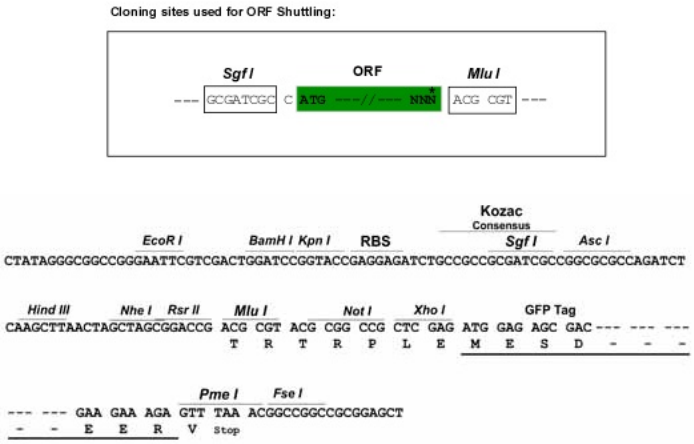
MNVGDKKGKIVDAVIQEHQPSVLLELGAYCGYSAVRMARLLSPGARLITIEINPDCAAITQRMVDFAGMK
DKVTLVVGASQDIIPQLKKKYDVDTLDMVFLDHWKDRYLPDTLLLEECGLLRKGTVLLADNVICPGAPDF
LAHVRGSSCFECTHYQSFLEYREVVDGLEKAIYKGPGSEAGP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

View online »

Cloning Scheme:



ACCN: NM_000754

ORF Size: 546 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.

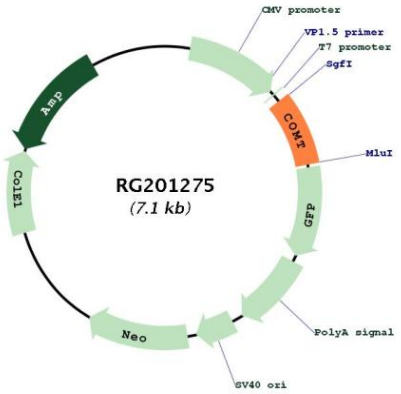
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_000754.2, NP_000745.1
RefSeq Size:	1289 bp
RefSeq ORF:	816 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]

Product images:



Circular map for RG201275