

## Recombinant Human COMT, His-tagged

Cat. No. COMT-26252TH Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant full length protein, corresponding to amino acids 1-221 of Human COMT with N terminal His tag; MWt 30kDa.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1-221 a.a.
<b>Description</b>	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.
<b>Conjugation</b>	HIS
<b>Tissue specificity</b>	Brain, liver, placenta, lymphocytes and erythrocytes.
<b>Form</b>	Lyophilised:Reconstitute with 80 µl aqua dest.

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<b>Storage buffer</b>	Preservative: None Constituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5
<b>Storage</b>	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequences of amino acids</b>	MGDTKEQRILNHVLQHAEPGNAQSVLEAIDTYCEQKEWAM NVGDKKGGKIVDAVIQE HQPSVLLELGAYCGYSVRMAR LLSPGARLITIEINPDCAAITQRMVDFAGVKDKVTL VV GASQDIIPQLKKKYDVTLDLMVFLDHWKDRYLPDTLLL EECGLLRKGTVLLADN VICPGAPDFLAHVGRSSCFECTHYQSFLYREVVDGLEKAIYKGGPGSEAGP
<b>Sequence Similarities</b>	Belongs to the mammalian catechol-O-methyltransferase family.
<b>Full Length</b>	Full L.

## GENE INFORMATION

<b>Gene Name</b>	COMT catechol-O-methyltransferase [ Homo sapiens ]
<b>Official Symbol</b>	COMT
<b>Synonyms</b>	COMT; catechol-O-methyltransferase; catechol O-methyltransferase;
<b>Gene ID</b>	1312
<b>mRNA Refseq</b>	NM_000754
<b>Protein Refseq</b>	NP_000745
<b>Uniprot ID</b>	P21964
<b>Chromosome</b>	22q11.21

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<b>Location</b>	
<b>Pathway</b>	Biogenic Amine Synthesis, organism-specific biosystem; Biological oxidations, organism-specific biosystem; Dopamine clearance from the synaptic cleft, organism-specific biosystem; Dopaminergic synapse, organism-specific biosystem; Dopaminergic synapse, conserved biosystem;
<b>Function</b>	O-methyltransferase activity; catechol O-methyltransferase activity; magnesium ion binding; transferase activity;

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