Recombinant Human Catechol-O-Methyltransferase

Cat. No. COMT-1253H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	COMT Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 221 amino acids (51-271 a.a.) & having a molecular mass of 24.4 kDa. The COMT is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
ProteinLength	51-271 a.a.
Description	COMT catalyzes the transfer of a methyl group from S-adenosylmethionine (SAM) to catechol substrates such as the neurotransmitters dopamine, epinephrine, and norepinephrine. This O-methylation results in one of the main degradative pathways of the catecholamine transmitters. COMT COMT is located in the postsynaptic neuron and is involved in the metabolism of catechol estrogen drugs used in the treatment of hypertension, asthma, Parkinson disease and the inactivation of catecholamine neurotransmitters though enzymatic degradation. COMT appears in tissues in 2 forms, a soluble form and a membrane-bound form which differ in their N-termini. COMT inhibitors prevent levodopa degradation, increase its availability and are used in the treatment of patients with Parkinson"s disease.
Form	COMT protein in 20mM Tris-buffer, pH-8, 1mM MgCl2 and 10% Glycerol.
Purity	Greater than 95.0% as determined by SDS-PAGE.

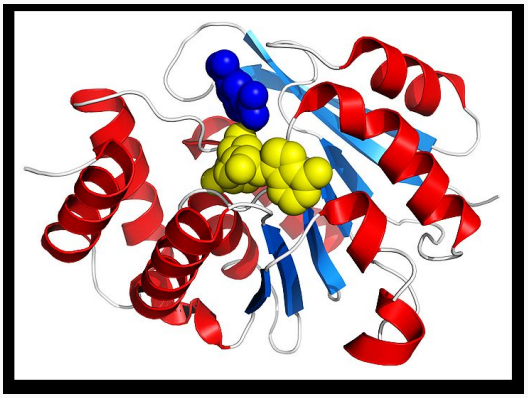
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Physical Appearance	Sterile Filtered clear solution.
Amino acid sequence	MGDTKEQRIL NHVLQHAEPG NAQSVLEAID TYCEQKEWAM NVGDKKGKIV DAVIQEHQPS VLLELGAYCG YSAVRMARLL SPGARLITIE INPDCAAITQ RMVDFAGVKD KVTLVVGASQ DIIPQLKKKY DVDTLDMVFL DHWKDRYLPD TLLLEECGLL RKGTVLLADN VICPGAPDFL AHVRGSSCFE CTHYQSFLEY REVVDGLEKA IYKGPGSEAG P.
Storage	Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	COMT catechol-O-methyltransferase [Homo sapiens]
Official Symbol	COMT
Synonyms	COMT; catechol-O-methyltransferase; EC 2.1.1.6
Gene ID	1312
mRNA Refseq	NM_000754
Protein Refseq	NP_000745
MIM	116790
UniProt ID	P21964
Chromosome Location	22q11.21-q11.23; 22q11.21

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Pathway	Tyrosine metabolism; Biological oxidations; Synaptic Transmission
Function	catechol O-methyltransferase activity; catechol O-methyltransferase activity; magnesium ion binding; protein binding; transferase activity
Cartoon diagram ofhuman COMT in complex with 3,5-dinitrocatechol (dark blue) and S-adenosyl methionine(yellow). From PDB 3BWM	

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA