ADVANCED TARGETING SYSTEMS

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Catechol-O-Methyltransferase Human Recombinant

ENZYME

Catalog Number: PRP-400
Quantity: 2 micrograms, 10 micrograms, 1 milligram
Format: Sterile-filtered clear solution
Host: *E. coli*

Background:
Catechol O-methyltransferase (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 is located in the postsynaptic neuron and is involved in the metabolism of catechol estrogen drugs used in the treatment of hypertension, asthma, Parkinson's disease and the inactivation of catecholamine neurotransmitters through 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 L-DOPA degradation, increase its availability and are used in the treatment of patients with Parkinson's disease.

Specificity and Preparation:
COMT Human Recombinant produced in *E.coli* is a single, non-glycosylated polypeptide chain containing 221 amino acids (51-271 a.a.) and having a molecular mass of 24.4 kDa. It is purified by proprietary chromatographic techniques. Purity is greater than 95.0% as determined by SDS-PAGE. COMT protein is provided in 20mM Tris-buffer, pH-8, 1mM $MgCl_2$ and 10% Glycerol.
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

Usage and Storage:
Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

To view protocol(s) for this and other products please visit: www.ATSbio.com/support/protocols