

## Recombinant Human COMT Protein, His/SUMO-tagged

**Cat. No.** COMT-015H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human COMT protein (2-221) with a N-terminal His/SUMO-tag was expressed in E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>    | 2-221                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | <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.</p> |
| <b>Molecular Mass</b>   | 37.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>           | ≥70% estimated by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Unit Definition</b>  | One unit produces 1 nmol/hr of O-methylated products from 3,4-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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dihydroxyacetophenone (DHAP) with S-adenosyl-L-methionine (SAM) as substrate at pH 7.6, 37 centigrade, measured by absorbance at 344 nm.

**Stability**

≥ 2 years

**Storage**

4 centigrade

**Storage Buffer**

50 mM Hepes, pH 8.0, with 500 mM NaCl and 10% glycerol

**Shipping**

Dry ice in continental US, may vary elsewhere.

## GENE INFORMATION

**Gene Name**

COMT catechol-O-methyltransferase [ [Homo sapiens \(human\)](#) ]

**Official Symbol**

COMT

**Synonyms**

COMT; catechol-O-methyltransferase; HEL-S-98n; catechol O-methyltransferase; catechol-O-methyltransferase isoform; epididymis secretory sperm binding protein Li 98n; testicular tissue protein Li 42; EC 2.1.1.6

**Gene ID**

1312

**mRNA Refseq**

NM\_000754

**Protein Refseq**

NP\_000745

**MIM**

116790

**UniProt ID**

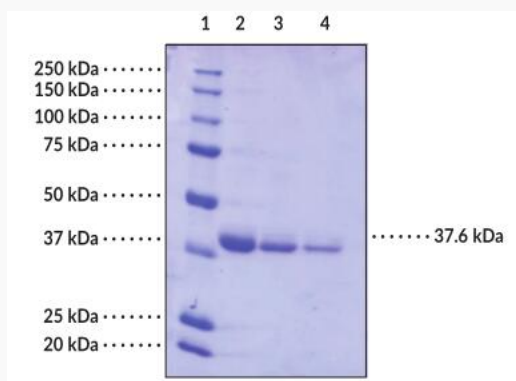
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### SDS-PAGE Analysis of COMT



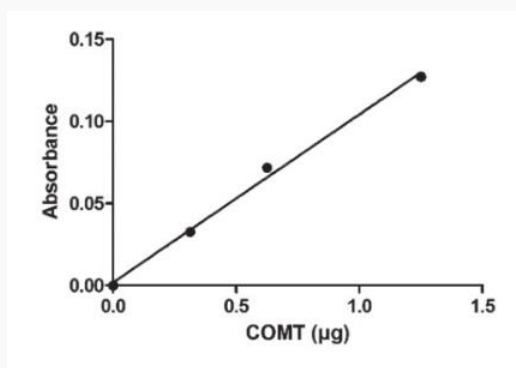
Lane 1: MW Markers

Lane 2: S-COMT (4 µg)

Lane 3: S-COMT (2 µg)

Lane 4: S-COMT (1 µg)

### COMT Enzyme Titration



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