



# COMT Polyclonal Antibody

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| <b>Catalog No</b>                  | YP-Ab-03781                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Reactivity</b>                  | Human;Rat;Mouse;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Applications</b>                | WB;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Gene Name</b>                   | COMT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Immunogen</b>                   | The antiserum was produced against synthesized peptide derived from human COMT. AA range:61-110                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Specificity</b>                 | COMT Polyclonal Antibody detects endogenous levels of COMT protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Dilution</b>                    | Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b>                    | catechol O methyltransferase;Catechol O-methyltransferase;EC:2.1.1.6;COMT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Observed Band</b>               | 30kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Calculated Molecular Weight</b> | 30kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Cell Pathway</b>                | [Isoform Soluble]: Cytoplasm .; [Isoform Membrane-bound]: Cell membrane ; Single-pass type II membrane protein ; Extracellular side .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Tissue Specificity</b>          | Brain, liver, placenta, lymphocytes and erythrocytes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Function</b>                    | catalytic activity:S-adenosyl-L-methionine + a catechol = S-adenosyl-L-homocysteine + a guaiacol.,cofactor:Binds 1 magnesium ion per subunit., function:Catalyzes the O-methylation, and thereby the inactivation, of catecholamine neurotransmitters and catechol hormones. Also shortens the biological half-lives of certain neuroactive drugs, like L-DOPA, alpha-methyl DOPA and isoproterenol.,mass spectrometry: PubMed:8020475,online information:Catechol-O-methyl transferase entry,polymorphism:Low enzyme activity alleles are associated with genetic susceptibility to alcoholism [MIM:103780].,polymorphism:Two alleles, COMT*1 or COMT*H with Val-158 and COMT*2 or COMT*L with Met-158 are responsible for a three to four-fold |



difference in enzymatic activity.,PTM:The N-terminus is blocked.,  
similarity:Belongs to the mammalian catechol-O-methyltransferase family.,tissue  
specificity:Brain, liver, placenta,

**Background**

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],

**matters needing attention**

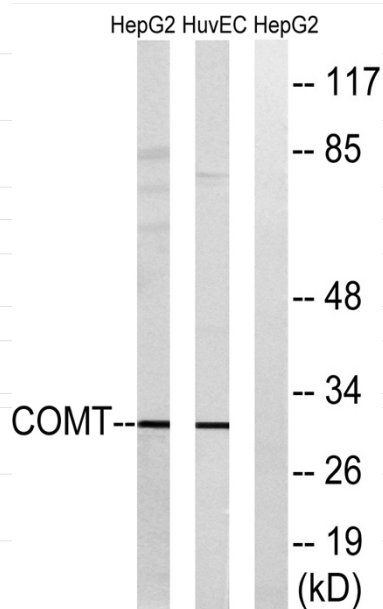
Avoid repeated freezing and thawing!

**Usage suggestions**

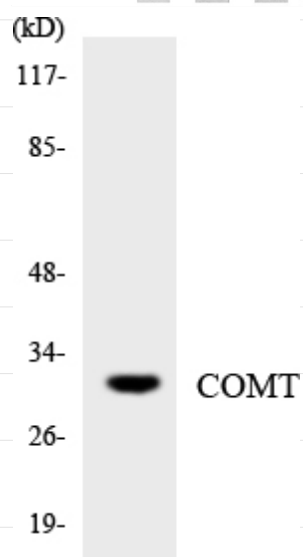
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



## Products Images



Western blot analysis of lysates from HUVEC and HepG2 cells, using COMT Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from Jurkat cells using COMT antibody.