Product Name: COMT Rabbit Polyclonal Antibody
Catalog #: APRab09227

Summary

Production Name	COMT Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	COMT
Alternative Names	COMT; Catechol O-methyltransferase
Gene ID	1312.0
SwissProt ID	P21964.The antiserum was produced against synthesized peptide derived from human COMT. AA range:61-110

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:20000
Molecular Weight	30kD

Background

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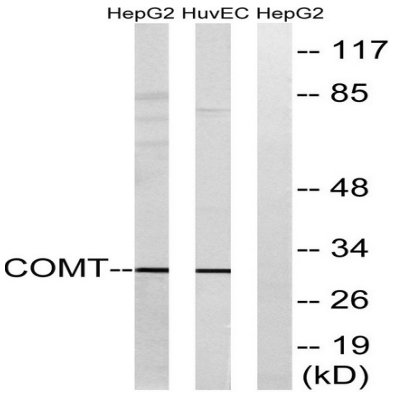
Catechol-O-methyltransferase catalyzes the transfer of a methyl group from S-adenosylmethionine to catecholamines, including the neurotransmitters dopamine, epinephrine, and norepinephrine. This O-methylation results in one of the major degradative pathways of the catecholamine transmitters. In addition 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],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, lymphocytes and erythrocytes.,

Research Area

Steroid hormone biosynthesis;Tyrosine metabolism;

Image Data



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

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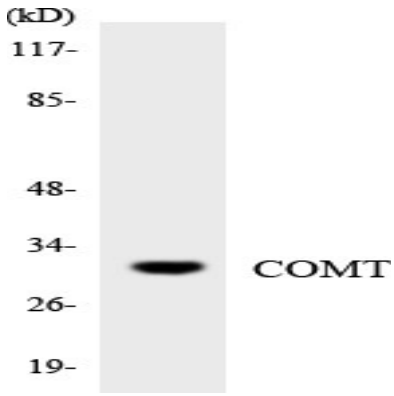

Western blot analysis of the lysates from Jurkat cells using COMT antibody.

Note

For research use only.