

Product name:	COMT Rabbit Polyclonal Antibody
Cat number:	ABN09227
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human COMT. AA range:61-110
Reactivity:	Human,Rat,Mouse
Applications:	WB 1:500-1:2000,ELISA 1:10000-1:20000
Molecular Weight:	30kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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],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.,