

**COMT Antibody (monoclonal) (M01)**

Mouse monoclonal antibody raised against a full length recombinant COMT.

Catalog # AT1588a

**Specification**

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**COMT Antibody (monoclonal) (M01) - Product Information**

Application	WB, E
Primary Accession	<a href="#">P21964</a>
Other Accession	<a href="#">BC000419</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG2b kappa
Calculated MW	30037

**COMT Antibody (monoclonal) (M01) - Additional Information****Gene ID** 1312**Other Names**

Catechol O-methyltransferase, COMT

**Target/Specificity**

COMT (AAH00419.2, 1 a.a. ~ 182 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

COMT Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

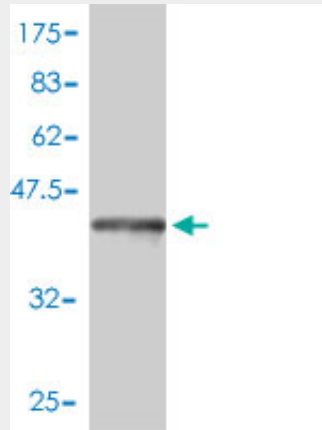
**COMT Antibody (monoclonal) (M01) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

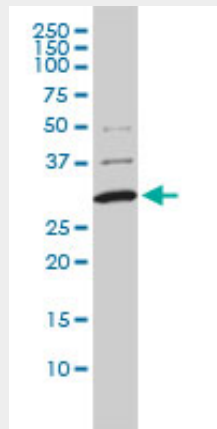
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

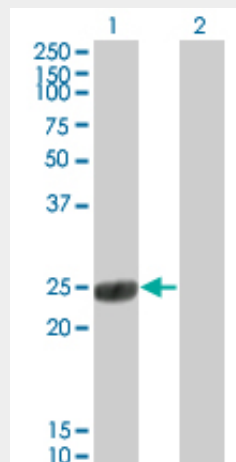
### COMT Antibody (monoclonal) (M01) - Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (45.76 KDa) .



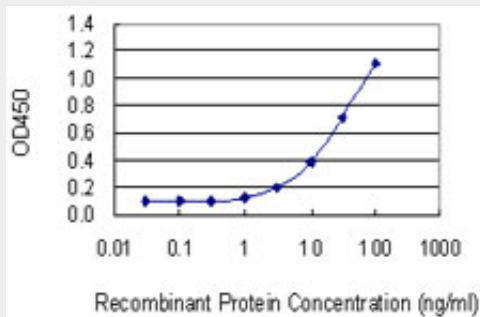
COMT monoclonal antibody (M01), clone 1G4-1A1 Western Blot analysis of COMT expression in A-431 ( (Cat # AT1588a )



Western Blot analysis of COMT expression in transfected 293T cell line by COMT monoclonal antibody (M01), clone 1G4-1A1.

Lane 1: COMT transfected lysate(24.4 KDa).

Lane 2: Non-transfected lysate.



Detection limit for recombinant GST tagged COMT is 0.3 ng/ml as a capture antibody.

### COMT Antibody (monoclonal) (M01) - 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.

### COMT Antibody (monoclonal) (M01) - References

Effects of modafinil on the sleep EEG depend on Val158Met genotype of COMT. Bodenmann S, et al. *Sleep*, 2010 Aug 1. PMID 20815183. Impact of aerobic exercise training on cognitive functions and affect associated to the COMT polymorphism in young adults. Stroth S, et al. *Neurobiol Learn Mem*, 2010 Aug 26. PMID 20800689. DAT1 and COMT Effects on Delay Discounting and Trait Impulsivity in Male Adolescents with Attention Deficit/Hyperactivity Disorder and Healthy Controls. Paloyelis Y, et al. *Neuropsychopharmacology*, 2010 Aug 25. PMID 20736997. Genetic polymorphism of catechol-O-methyltransferase and cytochrome P450c17? in preeclampsia. Lim JH, et al. *Pharmacogenet Genomics*, 2010 Oct. PMID 20729792. Association between Novelty Seeking of opiate-dependent patients and the catechol-O-methyltransferase Val(158)Met polymorphism. Demetrovics Z, et al. *Compr Psychiatry*, 2010 Sep-Oct. PMID 20728009.