

**Goat Anti-COMT (internal) Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1265a****Specification**

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**Goat Anti-COMT (internal) Antibody - Product Information**

Application	EIA, WB, IHC
Primary Accession	<a href="#">P21964</a>
Other Accession	<a href="#">NP_009294</a> , <a href="#">1312</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	30037

**Goat Anti-COMT (internal) Antibody - Additional Information****Gene ID** 1312**Other Names**

Catechol O-methyltransferase, 2.1.1.6, COMT

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-COMT (internal) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-COMT (internal) Antibody - Protein Information****Name** COMT ([HGNC:2228](#))**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.

**Cellular Location**

[Isoform Soluble]: Cytoplasm

## Tissue Location

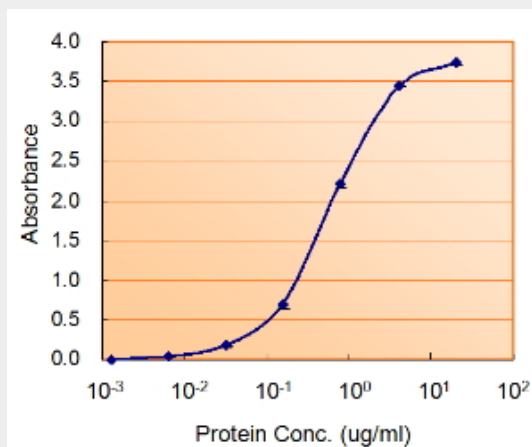
Brain, liver, placenta, lymphocytes and erythrocytes

## Goat Anti-COMT (internal) Antibody - Protocols

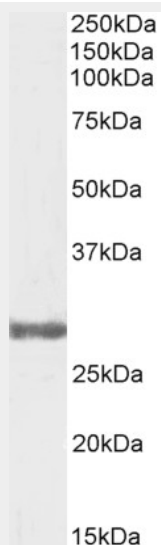
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

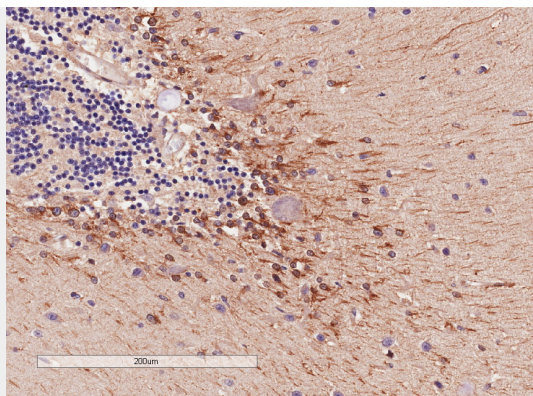
## Goat Anti-COMT (internal) Antibody - Images



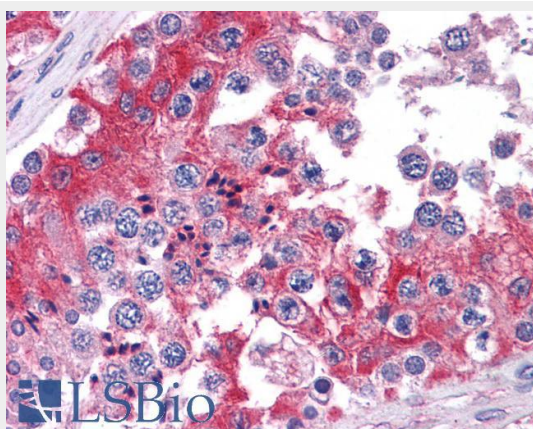
EB7357 (0.5ug/ml) as the reporter with EB002002 as the capture rabbit antibody (2.5ug/ml).



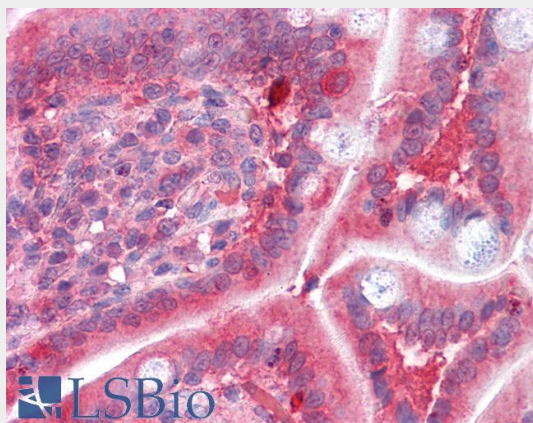
AF1265a (0.3μg/ml) staining of Human Testis lysate (35μg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF1265a (4µg/ml) staining of paraffin embedded Human Cerebellum. Microwaved antigen retrieval with Tris/EDTA buffer pH9, HRP-staining.



AF1265a (3.75µg/ml) staining of paraffin embedded Human Testis. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1265a (3.75µg/ml) staining of paraffin embedded Human Small Intestine. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

#### **Goat Anti-COMT (internal) Antibody - 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.

#### **Goat Anti-COMT (internal) Antibody - 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 $\alpha$  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.