

Anti-COMT Picoband Antibody
Catalog # ABO12226**Specification**

Anti-COMT Picoband Antibody - Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P21964
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Catechol O-methyltransferase(COMT) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-COMT Picoband Antibody - Additional Information

Gene ID 1312

Other Names

Catechol O-methyltransferase, 2.1.1.6, COMT

Calculated MW

30037 MW KDa

Application Details

Immunocytochemistry , 0.5-1 µg/ml
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, By Heat
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml
Western blot, 0.1-0.5 µg/ml

Subcellular Localization

Isoform Soluble: Cytoplasm.

Tissue Specificity

Brain, liver, placenta, lymphocytes and erythrocytes.

Protein Name

Catechol O-methyltransferase

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

E.coli-derived human COMT recombinant protein (Position: G52-P271). Human COMT shares 81.9% and 81% amino acid (aa) sequence identity with mouse and rat COMT, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the class I-like SAM-binding methyltransferase superfamily. Cation-dependent O-methyltransferase family.

Anti-COMT Picoband 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

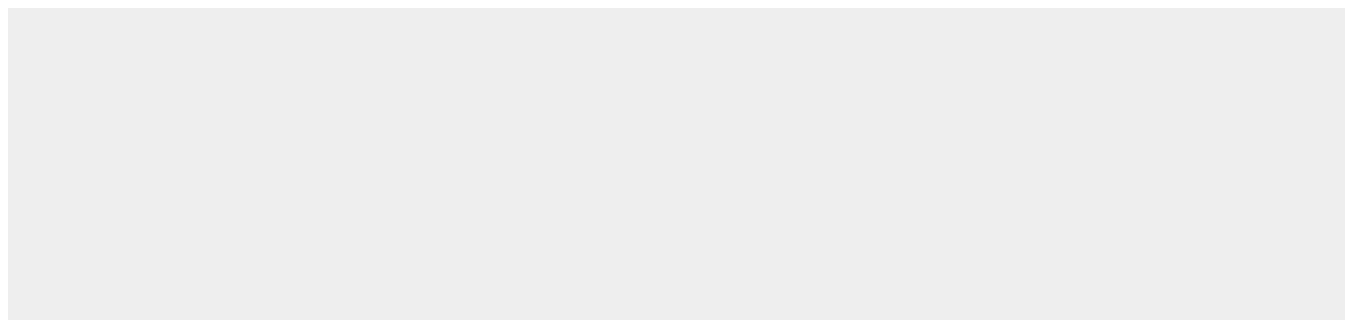
Tissue Location

Brain, liver, placenta, lymphocytes and erythrocytes

Anti-COMT Picoband 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](#)

Anti-COMT Picoband Antibody - Images

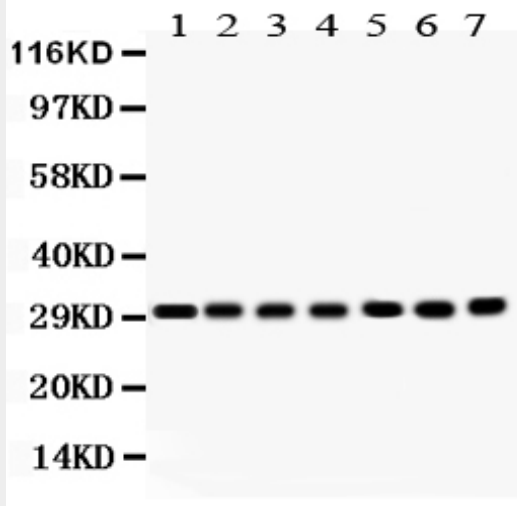


Figure 1. Western blot analysis of COMT using anti-COMT antibody (ABO12226). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Brain Tissue Lysate Lane 2: Rat Liver Tissue Lysate Lane 3: Rat Kidney Tissue Lysate Lane 4: Mouse Brain Tissue Lysate Lane 5: JURKAT Whole Cell Lysate Lane 6: CEM Whole Cell Lysate Lane 7: HELA Whole Cell Lysate After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-COMT antigen affinity purified polyclonal antibody (Catalog # ABO12226) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for COMT at approximately 30KD. The expected band size for COMT is at 30KD.

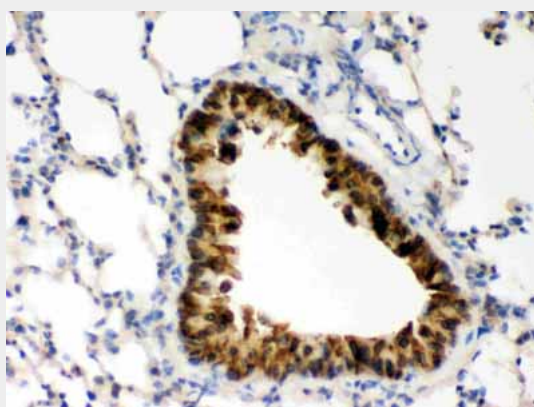


Figure 2. IHC analysis of COMT using anti-COMT antibody (ABO12226). COMT was detected in paraffin-embedded section of Mouse Lung Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

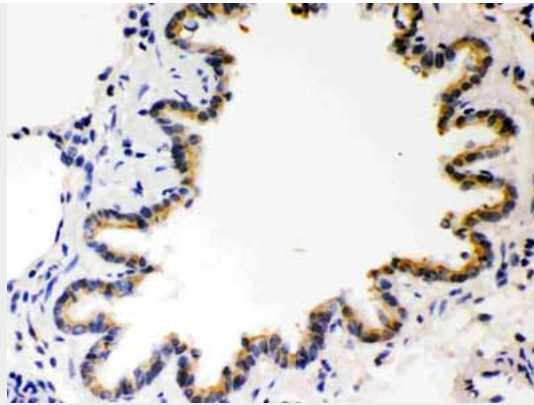


Figure 3. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in paraffin-embedded section of Rat Lung Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\frac{1}{4}$ g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

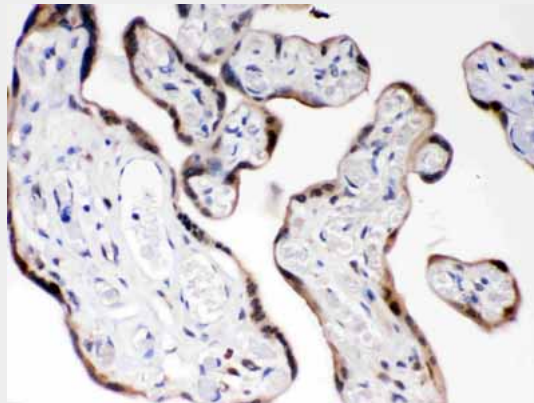


Figure 4. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in paraffin-embedded section of Human Placenta Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\frac{1}{4}$ g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

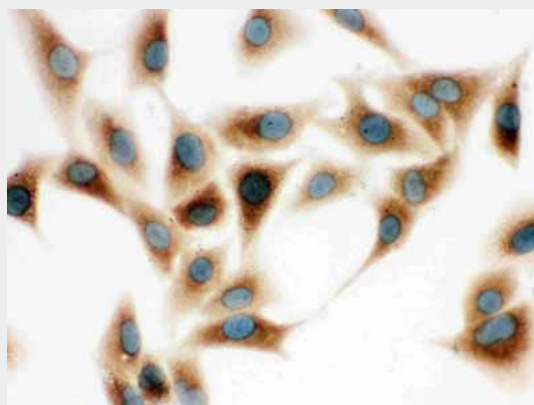


Figure 5. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in

immunocytochemical section of A549 Cell. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\frac{1}{4}$ g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4 $\text{\AA}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $\text{\AA}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

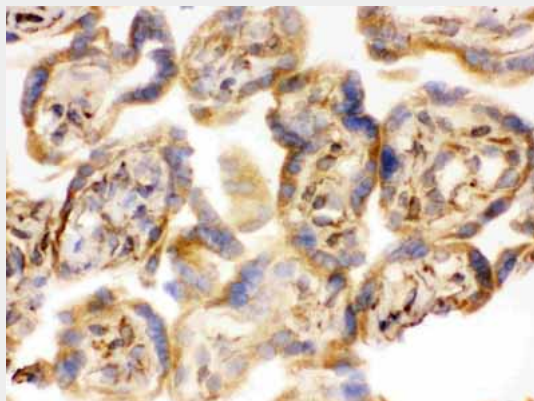


Figure 6. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in frozen section of human placenta tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\frac{1}{4}$ g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4 $\text{\AA}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $\text{\AA}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

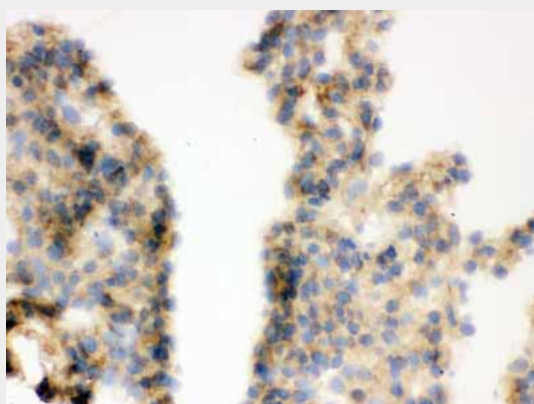


Figure 7. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in frozen section of mouse lung tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\frac{1}{4}$ g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4 $\text{\AA}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $\text{\AA}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

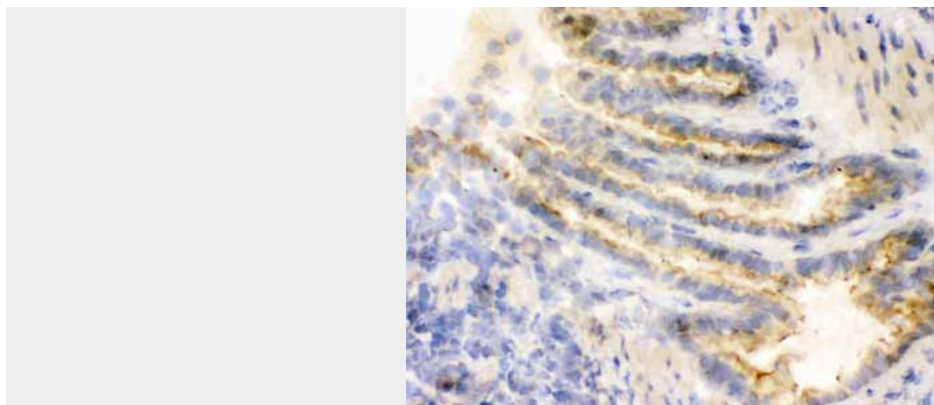


Figure 8. IHC analysis of COMT using anti-COMT antibody (ABO12226). COMT was detected in frozen section of rat lung tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Anti-COMT Picoband Antibody - Background

Catechol O-methyltransferase, also called COMT, is one of the major mammalian enzymes involved in the metabolic degradation of catecholamines. This gene is mapped to 22q11.21. 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.