10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Anti-COMT Picoband Antibody

**Catalog # ABO12226**

## Specification

### Anti-COMT Picoband Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC** |
| 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<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, By Heat<br>Immunohistochemistry(Frozen Section), 0.5-1 µg/ml<br>Western blot, 0.1-0.5 µg/ml<br>

**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 NaN3.

**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 r˚Constitution, 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 Cytomety
- Cell Culture

## Anti-COMT Picoband Antibody - Images

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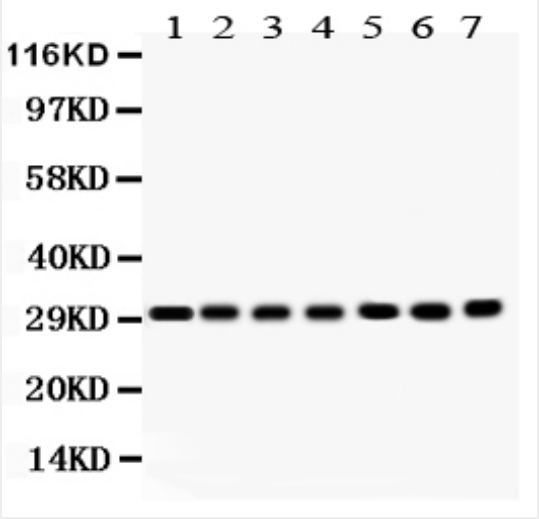


Figure 1. Western blot analysis of COMT using anti-COMT antibody (ABO12226). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Brain Tissue LysateLane 2: Rat Liver Tissue LysateLane 3: Rat Kidney Tissue LysateLane 4: Mouse Brain Tissue LysateLane 5: JURKAT Whole Cell LysateLane 6: CEM Whole Cell LysateLane 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 Î¼g/mL overnight at 4Â°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.

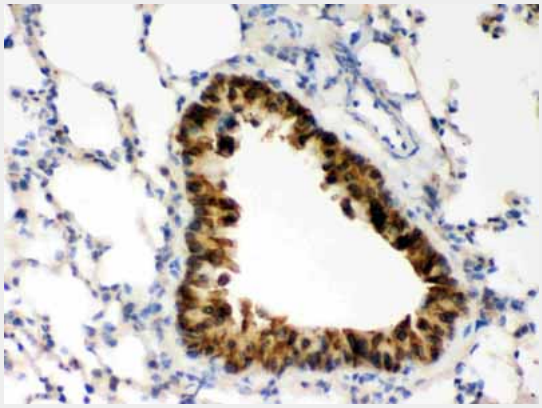

Figure 2. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in paraffin-embedded section of Mouse Lung Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

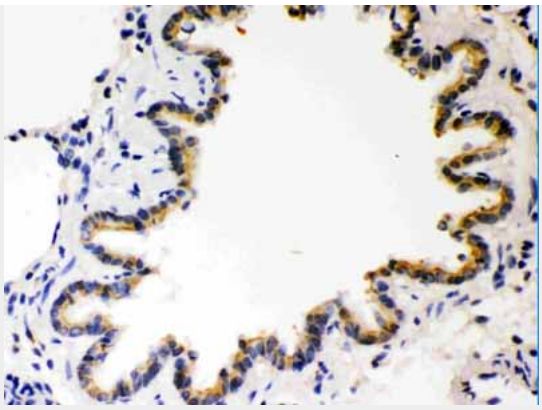

Figure 3. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in paraffin-embedded section of Rat Lung Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

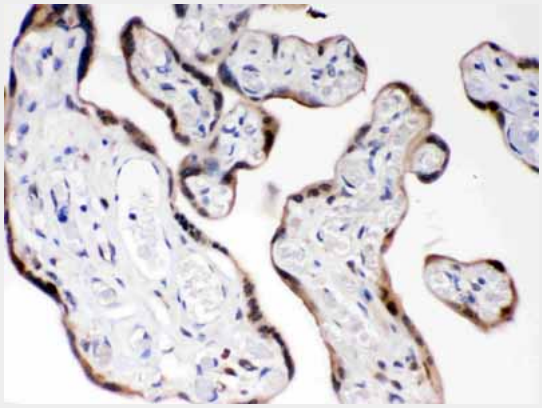

Figure 4. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in paraffin-embedded section of Human Placenta Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

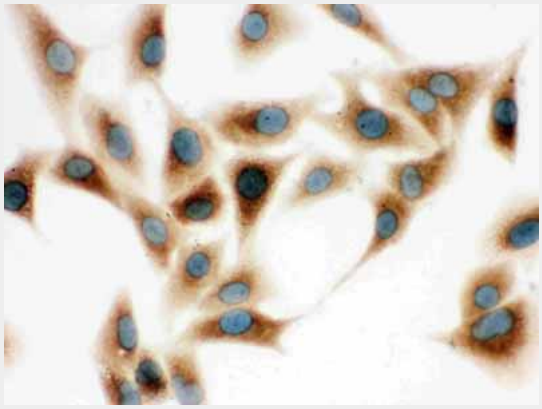

Figure 5. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in

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 1Î¼g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

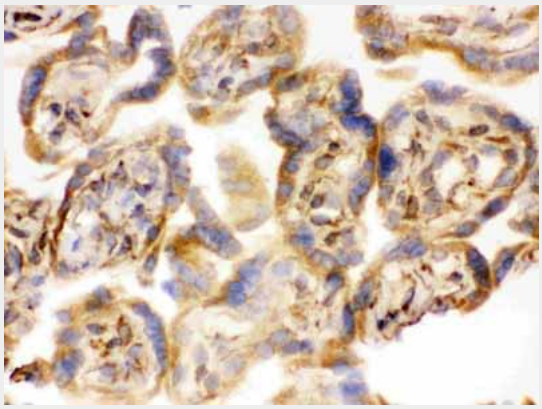

Figure 6. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in frozen section of human placenta tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

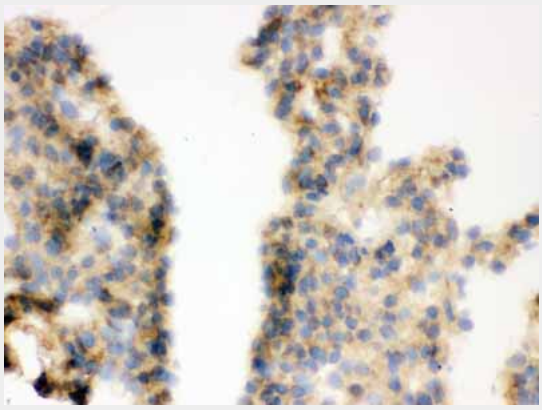

Figure 7. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in frozen section of mouse lung tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

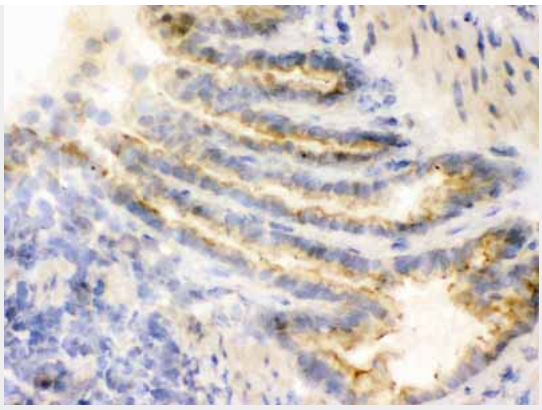

Figure 8. IHC analysis of COMT using anti-COMT antibody (ABO12226).COMT was detected in frozen section of rat lung tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti-COMT Antibody (ABO12226) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-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.