

Datasheet for ABIN2859257

**COMT ELISA Kit**[Go to Product page](#)**1** Image

## Overview

Quantity:	96 tests
Target:	COMT
Binding Specificity:	AA 52-271
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

## Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human COMT
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: G52-P271
Specificity:	E.coli, G52-P271
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

## Product Details

Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl
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## Target Details

Target:	COMT
Alternative Name:	COMT ( <a href="#">COMT Products</a> )
Background:	<p>Protein 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.</p> <p>Background: Catechol-O-methyltransferase (COMT) is one of several enzymes that degrade catecholamines such as dopamine, epinephrine, and norepinephrine. In humans, catechol-O-methyltransferase protein is encoded by the COMT gene. As the regulation of catecholamines is impaired in a number of medical conditions, several pharmaceutical drugs target COMT to alter its activity and therefore the availability of catecholamines. In the brain, COMT-dependent dopamine degradation is of particular importance in brain regions with low expression of the presynaptic dopamine transporter (DAT), such as the prefrontal cortex. This process is supposed to take place in postsynaptic neurons, as, in general, COMT is located intracellularly in the central nervous system (CNS).</p> <p>Synonyms: Catechol O-methyltransferase,2.1.1.6,COMT,</p> <p>Full Gene Name: Catechol O-methyltransferase</p> <p>Cellular Localisation: Isoform Soluble: Cytoplasm.</p>
Gene ID:	1312
UniProt:	<a href="#">P21964</a>
Pathways:	<a href="#">Steroid Hormone Biosynthesis</a> , <a href="#">SARS-CoV-2 Protein Interactome</a>

## Application Details

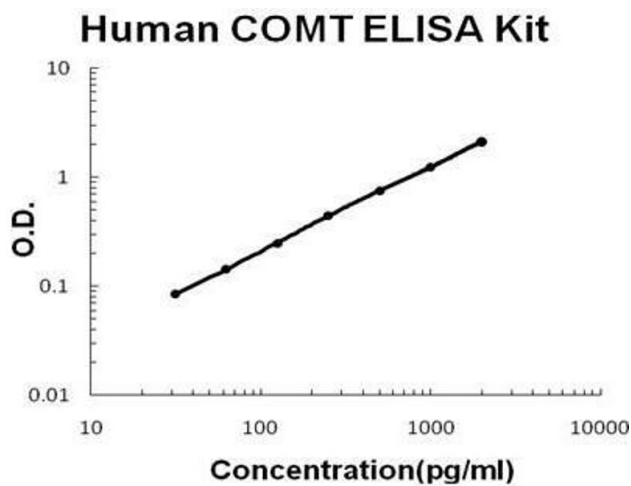
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Brain, liver, placenta, lymphocytes and erythrocytes.
Plate:	Pre-coated

## Application Details

Protocol:	human COMT ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for COMT has been precoated onto 96-well plates. Standards (E.coli, G52-P271) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for COMT is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human COMT amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human COMT standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum and plasma (heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human COMT standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(pg/ml): 305, Standard deviation: 15.55, CV(%): 5.1</li><li>• Sample 2: n=16, Mean(pg/ml): 818, Standard deviation: 43.35, CV(%): 5.3</li><li>• Sample 3: n=16, Mean(pg/ml): 1249, Standard deviation: 77.43, CV(%): 6.2,</li><li>• Sample 1: n=24, Mean(pg/ml): 254, Standard deviation: 16.25, CV(%): 6.4</li><li>• Sample 2: n=24, Mean(pg/ml): 699, Standard deviation: 38.44, CV(%): 5.5</li><li>• Sample 3: n=24, Mean(pg/ml): 1358, Standard deviation: 92.34, CV(%): 6.8</li></ul>
Restrictions:	For Research Use only

## Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C, 4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



**ELISA**

**Image 1.** Human COMT PicoKine ELISA Kit standard curve