

Human COMT ELISA Kit ab213766

1 Image

Overview

Product name Human COMT ELISA Kit

Detection method Colorimetric

Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	1	16	71pg/ml	4.97	= 7%
	2	16	245pg/ml	16.17	= 6.6%
	3	16	923pg/ml	61.84	= 6.7%

	Inter-assay				
	Sample	n	Mean	SD	CV%
	1	24	65pg/ml	8.43	= 7.9%
	2	24	220pg/ml	16.5	= 7.5%
	3	24	946pg/ml	79.46	= 8.4%

Sample type Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma

Assay type Sandwich (quantitative)

Sensitivity < 10 pg/ml

Range 31.2 pg/ml - 2000 pg/ml

Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview The Human COMT Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213766) is designed for the quantitative measurement of Human COMT in cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA).

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A

monoclonal antibody from mouse specific for COMT has been pre-coated 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 is added and unbound conjugates are washed away with PBS or TBS buffer. HRP substrate TMB is used to visualize HRP enzymatic reaction. TMB is 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.

Notes 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).

Platform Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions Store at -20°C. Please refer to protocols.

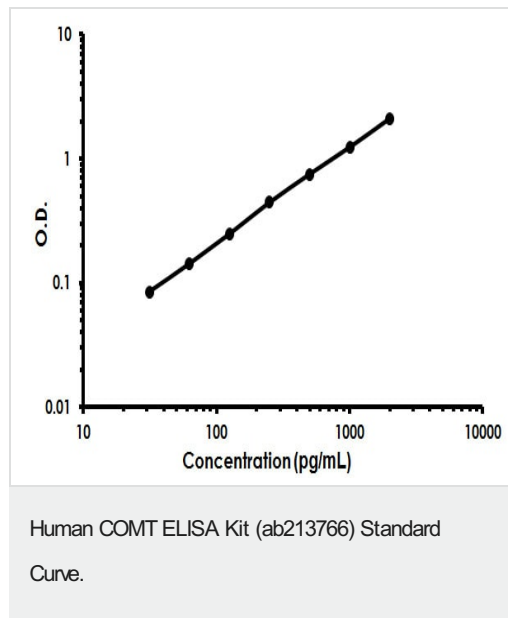
Components	Identifier	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml
Adhesive Plate Seal		4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml
Anti-Human COMT coated Microplate (12 x 8 wells)		1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl
Biotinylated anti- Human COMT antibody		1 x 100µl
Lyophilized recombinant Human COMT standard		2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml
Wash Buffer (25X)		1 x 20ml

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.

Tissue specificity Brain, liver, placenta, lymphocytes and erythrocytes.

Sequence similarities	Belongs to the mammalian catechol-O-methyltransferase family.
Post-translational modifications	The N-terminus is blocked.
Cellular localization	Cytoplasm and Cell membrane.

Images



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