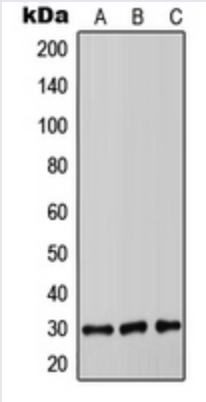
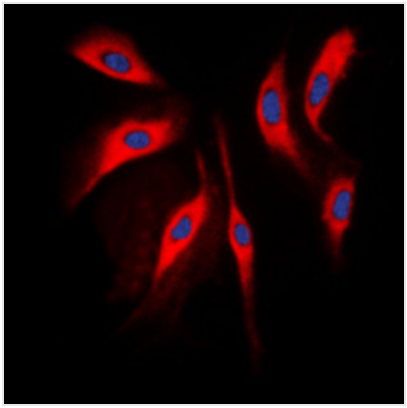
COMT Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	COMT, Polyclonal Antibody
Full Product Name	Rabbit anti-COMT Antibody
Product Gene Name	anti-COMT antibody
Product Synonym Names	Catechol O-methyltransferase
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat, Monkey
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Concentration	1mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid repeated freeze/thaw cycles.
Molecular Weight	30,037 Da
Chromosome Location	Chromosome: 22; NC_000022.10 (19929263..19957498). Location: 22q11.21
OMIM	103780
3D Structure	ModBase 3D Structure for P21964
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human COMT. The exact sequence is proprietary.
Product Categories/Family for anti-COMT antibody	Primary antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-COMT antibody	Western Blot (WB), Immunofluorescence (IF), Immunochemistry (IC)
Application Notes for anti-COMT antibody	WB: 1:500-1:1000 IF:IC: 1:100-1:500
Related Product Information for anti-COMT antibody	MBS4509204 is an antibody targeting COMT. Also known as Rabbit anti-COMT Antibody. Reactive in Human, Mouse, Rat, Monkey. Host: Rabbit.
Other Notes	Small volumes of anti-COMT antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-COMT antibody
Western blot analysis of COMT expression in HEK293T (A), Raw264.7 (B), rat liver (C) whole cell lysates.



Immunofluorescence (IF) of anti-COMT antibody
Immunofluorescent analysis of COMT staining in Raw264.7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for COMT. It may not necessarily be applicable to this product.

NCBI GI #	4502969
NCBI GeneID	1312
NCBI Accession #	NP_000745.1
UniProt Primary Accession #	P21964
UniProt Secondary Accession #	O88587; P22734
UniProt Related Accession #	P21964
GenBank Nucleotide #	NM_000754.3
NCBI Official Full Name	catechol O-methyltransferase isoform MB-COMT
NCBI Official Synonym Full Names	catechol-O-methyltransferase
NCBI Official Symbol	COMT
UniProt Protein Name	Catechol O-methyltransferase
Protein Family	Catechol O-methyltransferase
UniProt Gene Name	COMT
UniProt Entry Name	COMT_HUMAN
NCBI Protein Information	catechol O-methyltransferase
NCBI Summary for COMT	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. [provided by RefSeq, Sep 2008]

UniProt Comments for COMT	COMT: 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. Belongs to the mammalian catechol-O-methyltransferase family. 2 isoforms of the human protein are produced by alternative initiation. Protein type: Methyltransferase; Membrane protein, integral; EC 2.1.1.6; Amino Acid Metabolism - tyrosine Chromosomal Location of Human Ortholog: 22q11.21 Cellular Component: postsynaptic membrane; mitochondrion; membrane; axon; plasma membrane; integral to membrane; dendritic spine; cytosol Molecular Function: protein binding; magnesium ion binding; O-methyltransferase activity; catechol O-methyltransferase activity Biological Process: response to drug; methylation; estrogen metabolic process; cellular response to phosphate starvation; neurotransmitter catabolic process; dopamine catabolic process; negative regulation of smooth muscle cell proliferation; short-term memory; response to pain; response to lipopolysaccharide; learning; female pregnancy; reproductive process in a multicellular organism; response to organic cyclic substance; positive regulation of homocysteine metabolic process; negative regulation of dopamine metabolic process; synaptic transmission; xenobiotic metabolic process; regulation of sensory perception of pain; developmental process; neurotransmitter biosynthetic process Disease: Schizophrenia; Panic Disorder 1
Research Articles on COMT	**1.** COMT Val108/158Met and DBH -1021C>T polymorphisms do not show evidence of association with characteristics of the P300 ERP in an auditory oddball paradigm in healthy volunteers
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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