Datasheet for ABIN968704

anti-COMT antibody (AA 26-141)

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Overview

Quantity:	50 µg
Target:	COMT
Binding Specificity:	AA 26-141
Reactivity:	Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This COMT antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), BioImaging (BI)

Product Details

Immunogen:	Mouse COMT aa. 26-141
Clone:	4-COMT
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	COMT
Alternative Name:	COMT (COMT Products)
Background:	Catechol-O-methyltransferase (COMT) and monoamine oxidase (MAO) are the major mammalian enzymes involved in the degradation of the catecholamine neurotransmitters, dopamine, norepinephrine, and epinephrine. COMT is a Mg2+-dependent enzyme that catalyzes the transfer of methyl groups from S-adenosyl methionine to a hydroxyl group of a catecholic substrate. Two forms of COMT are found in rat brain, a 24 kDa soluble COMT (S-COMT) and a 28 kDa membrane-bound COMT (MB-COMT). COMT is widely expressed in brain, but its importance in catecholamine neurotransmitter degradation relative to MAO varies in different brain regions. In addition, COMT may function primarily in extraneuronal areas, such as in glial cells and postsynaptic neurons. COMT-deficient mice have sex- and region-specific alterations in dopamine levels in the brain, and display impaired emotional reactivity and aggressive behavior. Thus, COMT-mediated degradation of catecholamines in the brain may have important roles in maintaining normal catecholamine levels, as well as normal social behavior. This antibody is routinely tested by western blot analysis. Synonyms: Catechol-O-Methyltransferase
Molecular Weight:	24/28 kDa
Pathways:	Steroid Hormone Biosynthesis, SARS-CoV-2 Protein Interactome

Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

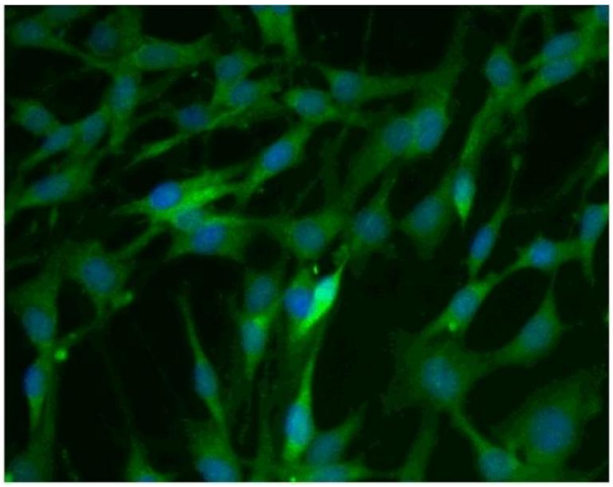
Product cited in:

Werner, Di Rocco, Prikhojan, Rempel, Bottiglieri, Bressman, Yahr: "COMT-dependent protection of dopaminergic neurons by methionine, dimethionine and S-adenosylmethionine (SAM) against L-dopa toxicity in vitro." in: **Brain research**, Vol. 893, Issue 1-2, pp. 278-81, (2001) (PubMed).

Gogos, Morgan, Luine, Santha, Ogawa, Pfaff, Karayiorgou: "Catechol-O-methyltransferase-deficient mice exhibit sexually dimorphic changes in catecholamine levels and behavior." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 95, Issue 17, pp. 9991-6, (1998) (PubMed).

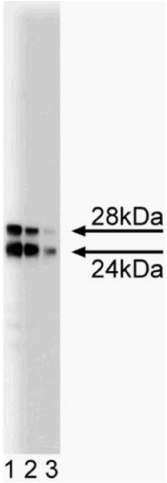
Tilgmann, Melen, Lundström, Jalanko, Julkunen, Kalkkinen, Ulmanen: "Expression of recombinant soluble and membrane-bound catechol O-methyltransferase in eukaryotic cells and identification of the respective enzymes in rat brain." in: **European journal of biochemistry / FEBS**, Vol. 207, Issue 2, pp. 813-21, (1992) (PubMed).

Images



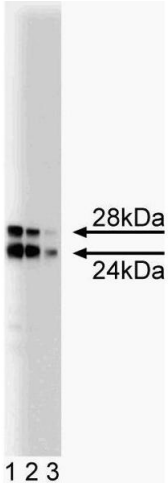
Immunofluorescence

Image 1.



Western Blotting

Image 2.



Western Blotting

Image 3. Western blot analysis of COMT on a rat pituitary lysate. Lane 1: 1:10,000, lane 2: 1:20,000, lane 3: 1:40,000 dilution of the anti- COMT antibody.

Please check the product details page for more images. Overall 4 images are available for ABIN968704.