

COMTD1 (T-14): sc-138211

BACKGROUND

Catechol-O-methyltransferase (COMT) plays a crucial role in the regulation of central dopaminergic systems by catalyzing the inactivation of catecholamines. It is widely distributed in most tissues in soluble and membrane-bound forms. COMT-mediated methylation metabolism of catecholamine neurotransmitters is a first-line detoxification pathway. A Val158Met polymorphism of the COMT gene affects activity of the enzyme and influences performance and efficiency of the prefrontal cortex of the brain. Sequential conversion of estradiol to methoxyestradiol by COMT, contributes to the antimutagenic effects of estradiol on vascular smooth muscle cell growth via estrogen receptor-independent mechanisms. COMTD1 (catechol O-methyltransferase domain-containing protein 1) is a 262 amino acid single-pass type II membrane protein that belongs to the methyltransferase superfamily. A putative O-methyltransferase, COMTD1 exists as a homodimer and is encoded by a gene that maps to human chromosome 10q22.21.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COMTD1 (human) mapping to 10q22.21; Comtd1 (mouse) mapping to 14 A3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

COMTD1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COMTD1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138211 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COMTD1 (T-14) is recommended for detection of COMTD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for COMTD1 siRNA (h): sc-90777, COMTD1 siRNA (m): sc-142492, COMTD1 shRNA Plasmid (h): sc-90777-SH, COMTD1 shRNA Plasmid (m): sc-142492-SH, COMTD1 shRNA (h) Lentiviral Particles: sc-90777-V and COMTD1 shRNA (m) Lentiviral Particles: sc-142492-V.

Molecular Weight of COMTD1: 29 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



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Try **COMTD1 (C-5): sc-515490**, our highly recommended monoclonal alternative to COMTD1 (T-14).