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Product Information

Anti-COMT
produced in rabbit, IgG fraction of antiserum

Product Number **C6870**

Product Description

Anti-COMT is produced in rabbit using as immunogen a synthetic peptide corresponding to a fragment of human MB-COMT (GeneID: 1312) with an added cysteine, conjugated to KLH. The corresponding sequence differs by one amino acid in rat and mouse. IgG fraction of antiserum is purified from whole antiserum using protein A immobilized on agarose.

Anti-COMT recognizes human, rat, and mouse MB-COMT and S-COMT. The antibody can be used in several immunochemical techniques including immunoblotting (~24 and ~28 kDa) and immunoprecipitation. Detection of the COMT bands by immunoblotting is specifically inhibited by the immunizing peptide.

Catechol-O-methyltransferase (COMT) catalyzes the transfer of a methyl group from S-adenosylmethionine to catecholamine neurotransmitters including dopamine, noradrenaline, and adrenaline, their metabolites, and L-DOPA. Its major physiological role is to inactivate biologically active or toxic catechols.[1,2] COMT is widely expressed in neuronal and non-neuronal tissues. In mammals two isoforms have been identified: a cytosolic soluble form (S-COMT) and a membrane-bound form (MB-COMT), whose relative levels differ in various tissues and species.[3] Variations in enzymatic activity of COMT result in the pathogenesis of different psychiatric and neurological diseases.[1,4] COMT inhibitors are important therapeutic agents used in the treatment of Parkinson's disease.[5]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody dilution of 1:250–1:500 is recommended using whole extracts of mouse and rat liver.

Immunoprecipitation: a working antibody amount of 5–10 µL is recommended using human HepG2 cell lysates.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

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4. Akil, M. et al., *J. Neurosci.*, **23**, 2008-2013 (2003).
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VS,ST,TD,KAA.PHC,MAM 01/19-1