

Product Information

Anti-Serotonin 5-HT_{2B} Receptor

produced in rabbit, affinity isolated antibody

Catalog Number **S0445**

Product Description

Anti-Serotonin 5-HT_{2B} Receptor is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the second extracellular loop of human Serotonin 5-HT_{2B} Receptor. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Serotonin 5-HT_{2B} Receptor specifically recognizes human serotonin 5-HT_{2B} receptor by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. The immunizing peptide has 80% homology with the rat gene and 93% homology with the mouse gene. Other species reactivity has not been confirmed.

The monoamine serotonin (5-hydroxytryptamine [5-HT]) mediates its effects in a number of physiological processes including anxiety, depression, sexual activity and sleep through interactions with different receptor subtypes.¹ At least 14 mammalian serotonin receptor subtypes have been identified and classified into several families on the basis of common structural, pharmacological and functional criteria.² These receptors differ in their tissue and cellular localization, affinity for serotonin and second messenger pathways. The majority of these receptors stimulate a GTP-binding protein upon agonist stimulation and couple to adenylate cyclase or phospholipase C. In contrast, the 5-HT₃ receptor acts as a cation-selective channel. The serotonin receptors have generated considerable pharmacological interest as targets for the identification of selective drugs that interact with a specific receptor subtype. Activation of 5-HT_{2B} receptors may contribute to initiation of sleep and to theta generation during W and PS under physiological conditions.³ The Serotonin 5-HT_{2B} Receptor also regulates cardiomyocyte development and growth.⁴

5-HT_{2B} receptor is expressed in many tissues including human liver, kidney, lung, heart, pancreas, spleen, brain, spinal cord, gastrointestinal tract, placenta, and coronary and pulmonary arteries. It has also been

reported in embryonic mouse heart and spinal cord. ESTs have been isolated from heart/melanocyte/uterus, kidney, prostate, skin, and thyroid libraries.

Reagent

Supplied as a solution of 1 mg/ml in phosphate buffered saline containing ≤0.1% sodium azide as a preservative.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -70 °C. Upon initial thawing, freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing, or storage in frost-free freezers, to prevent denaturing the antibody. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 12 months when stored appropriately.

Product Profile

Immunohistochemistry: a recommended working concentration using human brain, neurons and glial is lot specific and may be found in the Certificate of Analysis for the lot.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

1. Teitler, M. and Herrick-Davis, K., *Crit. Rev. Neurobiol.*, **8**, 175-188 (1994).
2. Leonard, B.E., *Psychother. Psychosom.*, **65**, 66-75 (1996).

3. Kantor, S., et al., *Br. J. Pharmacol.*, **142**, 1332-1342 (2004).
4. Jaffre, F., et al., *Circulation*, **110**, 969-974 (2004).

This product manufactured by MBL International.

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