3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-Serotonin 5-HT$_4$ Receptor
produced in rabbit, affinity isolated antibody

Catalog Number **S0195**

Product Description

Anti-Serotonin 5-HT$_4$ Receptor is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the third cytoplasmic loop of human serotonin 5-HT$_4$ receptor. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Serotonin 5-HT$_4$ Receptor specifically recognizes human serotonin 5-HT$_4$ receptor in human brain neurons by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. The immunizing peptide has 94% homology with the mouse gene and 100% homology with the rat 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-HT$_3$ 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.

Based on physiological and behavioral experiments, 5-HT$_4$ receptors may be targets to treat cognitive deficits, abdominal pain and feeding disorders.[3]

Reagent

Supplied as a solution 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

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 dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunohistochemistry: the recommended working concentration is 5-10 µg/ml using human brain neurons.

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

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. Bockaert, J., et al., *Curr. Drug Targets CNS Neurol. Disord*,. **3,** 39-51 (2004).

This product is manufactured by MBL International Corporation

RC,PHC 01/15-1