

## Product Information

### Anti-Serotonin 5-HT<sub>6</sub> Receptor

produced in rabbit, affinity isolated antibody

Catalog Number **S0570**

#### Product Description

Anti-Serotonin 5-HT<sub>6</sub> Receptor is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the C-terminal of human serotonin 5-HT<sub>6</sub> receptor. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Serotonin 5-HT<sub>6</sub> Receptor specifically recognizes human serotonin 5-HT<sub>6</sub> receptor in brain neurons by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. The immunizing peptide has 100% homology with the mouse and rat genes. 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.<sup>1</sup> 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.<sup>2</sup> 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<sub>3</sub> 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. The 5-HT<sub>6</sub> Receptor is abundant in limbic and cortical regions of the CNS. The high affinity of a wide range of psychiatric drugs for the receptor has stimulated interest into its role in affective disorders. The 5-HT<sub>6</sub> Receptor appears to regulate glutamatergic and cholinergic neuronal activity, and may be involved in the regulation of cognition, feeding, and seizures, in addition to its proposed role in affective state.<sup>3</sup>

#### Reagent

Supplied as a solution of 1 mg/mL in phosphate buffered saline, pH 7.7, containing 0.01% 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: a minimum working concentration of 2 µg/mL is determined 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. Woolley, M.L., et al., *Curr. Drug Targets CNS Neurol. Disord.*, **3**, 59-79 (2004).

This product is manufactured by MBL International Corporation

NRC,KAA,PHC 09/08-1

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.