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-D_1 Dopamine Receptor
produced in rabbit, affinity isolated antibody

Catalog Number **D6692**

Product Description

Anti-D_1 Dopamine Receptor is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the third cytoplasmic loop of human D_1 Dopamine Receptor. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-D_1 Dopamine Receptor specifically recognizes D_1 Dopamine Receptor in human brain, neurons and glia, by immunohistochemistry with formalin-fixed, paraffin-embedded tissues, and by immunocytochemistry. The immunizing peptide has 93% homology with the rat gene and 100% homology with the mouse gene. Other species reactivity has not been confirmed.

Dopamine receptors were initially divided into two general categories on the basis of differences in receptor pharmacology and biochemical mechanisms of signal transduction. With the application of the techniques of molecular biology, two predominant dopamine receptors, D_1 and D_2, were cloned. Later other dopamine receptors with homology to either the D_1 or D_2 receptor were identified. Thus, at present, two families of vertebrate dopamine receptors (designated as D_1-like and D_2-like) are recognized. The D_1-like family consists of the D_1 and D_5 receptors while the D_2-like family consists of the D_2, D_3 and D_4 receptors.

D_1 Dopamine receptor has been reported mostly in various regions of the brain. ESTs have been isolated from normal olfactory epithelium and cancerous genitourinary tract libraries.

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

The recommended working concentration is 4-21 µg/ml for immunohistochemistry using human brain, neurons and glia, and for immunocytochemistry.

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. Baldessarini, R.J. and Tarazi, F.I., Brain dopamine receptors: a primer on their current status, basic and clinical, *Harv. Rev. Psychiatry*, **3**, 301-325 (1996)
2. Huang, X., et al., D1 dopamine receptors, *Int. Rev. Neurobiol.*, **48,** 65-139 (2001).
3. Wong, A.H. and Van Tol, H.H., The dopamine D4 receptors and mechanisms of antipsychotic atypicality, *Prog. Neuropsychopharmacol. Biol. Psychiatry*, **27,** 1091-1099 (2003).

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DKF/MCT/PHC 08/08-1