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# United States Patent [19]

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[54] **6 (R)-L-ERYTHRO-5,6,7,8-TETRAHYDROBIOPTERIN RECEPTOR**

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[58] **Field of Search** ..... **530/350, 422**

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[57] **ABSTRACT**

A receptor (binding protein) specific for 6(R)-L-erythro-5,6,7,8-tetrahydrobiopterin which is a drug effective for neuropsychiatric disorders such as infantile autism is provided. This receptor is contained in the cytosol fraction or the membrane fraction obtained from a homogenate of an animal organ. It is solubilized from the membrane fraction in the presence of 3-[(3-cholamidopropyl)-dimethylammonio]-1-propanesulfonate (CHAPS). This receptor is characterized in that the binding ability thereof to 6R-BH4 is mostly lost by heating at 100° C. for 10 minutes, the binding ability thereof to 6R-BH4 is significantly lost by incubating with trypsin at 37° C. for 15 minutes, and said receptor shows a relative molecular weight of about 340 to 380 kilodaltons when specifically bound to tritium-labeled 6R-BH4 and analyzed with a molecular sieve provided with a COSMOSIL 5 Diol-300 column.

**4 Claims, 5 Drawing Sheets**