Product Informatiion Sheet

Polyclonal Anti- Dopamine receptor D_1, ***DRD1*** **(Magnetic Bead Conjugate)**

Catalogue No. PA1231-M

Lot No. 09E01

Ig type: rabbit IgG1

Size: 100µg/Vial

Specificity

Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

Immunoprecipitation(IP)

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human DRD1, identical to the related rat and mouse sequence.

Purification

Immunogen affinity purified

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN_3.

Storage

Store at 4˚C for frequent use.

Description:

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

BACKGROUND

Dopamine receptor D_1, also known as DRD1, is a human gene. It is the most highly expressed DA receptor subtype among the DA receptor family.[1] Receptors for dopamine have been classified into two functional types, D1 and D2. They belong to the family of receptors acting through G (or guanine nucleotide-binding) proteins. D2 receptors inhibit adenylyl cyclase, but D1 receptors stimulate adenylyl cyclase and activate cyclic AMP-dependent protein kinases. Dopamine D1 and D2 receptors are targets of drug therapy in many psychomotor disorders, including Parkinson's disease and schizophrenia, and may also have a role in drug addiction and alcoholism. D1 receptors regulate neuron growth and differentiation, influence behaviour and modify dopamine D2 receptor-mediated events. And the presence of a D1 receptor gene restriction fragment length polymorphism will be helpful for future disease linkage studies.[2] DRD1 also regulates the neurochemical architecture of the striatum and is critical for the normal expression of motor activity.[3]

REFERENCE

1. Zhang J, Xiong B, Zhen X, Zhang A. (2009). "Dopamine D1 receptor ligands: where are we now and where are we going.". *Med Res Rev.* 29 (2): 272-294.
2. Sunahara, R. K.; Niznik, H. B.; Weiner, D. M.; Stormann, T. M.; Brann, M. R.; Kennedy, J. L.; Gelernter, J. E.; Rozmahel, R.; Yang, Y.; Israel, Y.; Seeman, P.; O'Dowd, B. F. :Human dopamine D1 receptor encoded by an intronless gene on chromosome 5. *Nature* 347: 80-83, 1990.
3. Xu, M.; Moratalla, R.; Gold, L. H.; Hiroi, N.; Koob, G. F.; Graybiel, A. M.; Tonegawa, S. : Dopamine D1 receptor mutant mice are deficient in striatal expression of dynorphin and in dopamine-mediated behavioral responses. *Cell* 79: 729-742, 1994.