Product Information Sheet

# Polyclonal Anti- Dopamine receptor $D_1$, *DRD1*

**Catalogue No.** PA1231

**Lot No.** 09E01

**Ig type** rabbit IgG

**Size** 100µg/vial

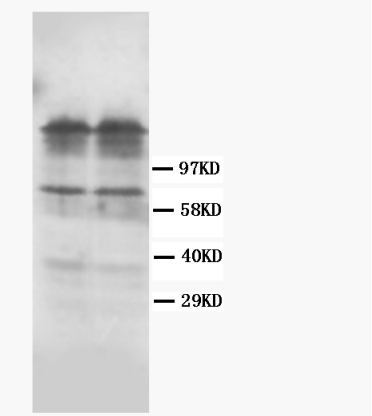
**Specificity**

Human, rat, mouse

No cross reactivity with other proteins.

**Recommended application**

*Western blot*




Lane 1 : Rat brain tissue Lysate
Lane 2 : Rat brain tissue Lysate

**Immunogen**

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

**Purity**

Immunogen affinity purified.

**Application**

| | Concen-tration | Tested Species | Concluded Species | Antigen Retrieval |
|---|---|---|---|---|
| WB | 1µg/ml | Hu, Rat | Ms | - |
| IHC-P | - | - | - | - |
| IHC-F | - | - | - | - |
| ICC | - | - | - | - |

*Other applications have not been tested.*

*Optimal dilutions should be determined by end user.*

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg $Na_2HPO_4$, 0.05mg Thimerosal, 0.05mg $NaN_3$.

**Reconstitution**

0.2ml of distilled water will yield a concentration of 500µg/ml.

**Storage**

At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for longer time.

**To reorder contact us at:**

**Antagene, Inc.**

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## 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.