

Product Specification Sheet

**Dopamine D2R Receptor (D2R) Antibodies**

<b>Cat # D2R11-P</b>	Rat D2R control peptide #1	<b>SIZE:</b> 100 ug
<b>Cat # D2R11-S</b>	Rabbit Anti Rat D2R Antiserum	<b>SIZE:</b> 100 ul
<b>Cat # D2R11-A</b>	Rabbit Anti Rat D2R IgG #1, affinity pure	<b>SIZE:</b> 100 ug

Dopamine is an endogenous catecholamine that influences many cellular activities, including behavior, hormone synthesis and release, blood pressure and intracellular ion transport. A family of at least 5 Dopamine Receptors (DR) genes, D1-D5, have been identified based upon the amino acid identity, pharmacological specificity and effector responses. DR have been classified into either the D1-like (D1, D1B, and D5) or D2-like (D2, D3, and D4). Dopamine D2 receptor is known to exist in the short (D2<sub>S</sub>) and the long (D2<sub>L</sub>) forms that are encoded by splice variants of a single gene and differ only by the presence of an additional 29 amino acid in the intracellular, cytoplasmic loop 3 (1). D2L receptor is a 446 aa, G-protein coupled, and transmembrane receptor protein. D2R may play a role in the coupling of the receptor to G-proteins. All members of this family have similar structure and contain 7 putative transmembrane domains.

**Source of Antigen, Antibodies**

<b>Antigen</b>	11-aa peptide of rat D2R ; <b>Designated (D2R11-P or control peptide) conjugated to KLH. Epitope location ~ N-terminal, Extracellular domain 1</b>
<b>Ab Host/type</b>	Rabbit, polyclonal Unpurified antiserum ( <b>cat #D2R11-S</b> ) & Aff pure IgG ( <b>cat #D2R11-A</b> ) purified over antigen-agarose column
<b>2-ab</b>	<b>Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)</b>
<b>-ve control</b>	<b># 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control</b>

**Form & Storage of Antibodies/Peptide Control**

**Antiserum (unpurified)**

100ul solution lyophilized powder  
Supplied in Buffer: 0.05% azide  
**Reconstitute powder in 100 ul PBS**

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% BSA  
**Reconstitute powder in PBS at 1mg/ml**

**Control/blocking peptide**

100 ug/100 ul solution lyophilized powder  
Supplied in Buffer: PBS pH 7.5,  
**Reconstitute powder in PBS at 1 mg/ml.**

**Storage**

**Short-term:** unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..

**Long-term:** at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder

**Recommended Usage**

**Western Blotting** (1:1K-5K for antiserum and 1-10 ug/ml for affinity pure IgG using Chemiluminescence technique.

**ELISA:** Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

**Histochemistry:** not tested. We recommend the use of affinity purified antibody at 2-10 ug/ml.

**Specificity & Cross-reactivity**

The 11 AA rat D2R11-P peptide showed 100% homology with mouse 90% homology with human, bovine, 72% with dog D2R receptors. The antibody has been shown to cross react with human (CNS and peripheral), Lobster, Squid and crawfish (2). Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at: the web site).

**General References:**

(1) Bunzow, JR (1989) Nature 336, 783-7871. (2) Sakata, M (1992) Brain Res. 575, 309-314; Farooqui, SM (1991) J Neurochem. 57, 1363; Farooqui, SM I (1992) BBRC 184, 661; Brock, J (1992) Brain Res. (1992) 578, 244; Farooqui, SM (1992) Life. Sci. 51, 1509-1516.

**(2) Citations of ADI's Antibodies** (see web site for updated list)

Kamiya T, 2003, BBBRC 306, 544-549, WB,, IHC, IF, IP  
Farooqui SM, 1991, J. Neurochem., 57, 1363-1369, WB, ,  
Farooqui SM, 1992, Life Sci. 51, 1509-1516, , ,  
Sakata M, 1992, BBRC. 575, 309-314, WB,, ,  
Farooqui SM, 1992, BBRC. 84(2):661-7., WB,, IHC,,  
Sutoo D, 2003, Brain Research, 980, 24-30, , IHC,

\*This product is for In vitro research use only.

D2R11-S-A-P 71218S