ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Dopamine D2 (L/S) Receptor Antibodies

Cat. # D2R14-P	Human D2R (L/S) Receptor Control Peptide	**SIZE**: 100 ug
Cat. # D2R14-A	**Goat** Anti-Human D2R (L/S) Receptor Ab # 4 (aff pure)	**SIZE**: 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). The two isoforms of D2R, D2 long (D2L) and short D2S), are encoded by splice variants of a single gene and differ only by the presence of an additional 29 AA in the intracellular domain 3 of the D2 long form. It may play a role in the coupling of the receptor to G-proteins. D2L receptor is a 446 aa, G-protein coupled, and transmembrane receptor protein All members of this family have similar structure and contain 7 putative transmembrane domains.

Source of Antigen, Antibodies

Antigen	19-aa peptide of Human D2R ; **Designated (D2R14-P or control peptide)** conjugated to KLH. **Epitope location** ~ N-terminal, Extracellular
Ab Host/type	Goat, polyclonal Aff pure IgG (**cat #D2R14-A**) purified over antigen-agarose column
2ab	Anti-Goat IgG (H+L chain sp.)-HRP conjugate **(cat # 30220)**
-ve control	**# 20011-1**, goat (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

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^{O}C and powder at 4^{o}C or -20^{o}C..

Long-term: at –20^{0}C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20^{o}C or below.
Shipping: 4^{o}C for solutions and room temp for powder

Recommended Usage

Western Blotting (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 (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 human D2R14-P peptide is specific for D2R. No significant sequence homology is seen with other dopamine receptors (D1 and D3-D5). Human D2R14-P peptide is 100% homologous with rat, mouse, monkey, chimpanzee, 94% in canine, 84% in ferret and bovine D2R. Antibody crossreactivity with D2 receptors from various species is not known. 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:
Dal Toso et (1989) EMBO J 8, 4025; Grandy DK et (1989) PNAS 86, 9762; Monsama FJ et al (1990) Nature 342, 926; Giros B et (1989) Nature 342, 923; Boundy, VA et al (1993) Mol Pharmacol. 43, 666-676; Sakata, M et al (1992) Brain Res. 575, 309-314; Farooqui, SM (1991) J Neurochem. 57, 1363-1369; Farooqui, SM et al (1992) BBRC 184, 661-667; Brock, J et al (1992) Brain Res. (1992) 578, 244-250; Farooqui, SM et al (1992) Life. Sci. 51, 1509-1516.

Citations of ADI's antibodies for DR (see updated list at: The web site)

*This product is for In vitro research use only.

Related material available from ADI

Antibodies D1/D2/D3/D4 and Dopamine Transporter and Serotonin Transporter

Recycle your blot in Just 5-10 min. (use the same strip for various Dopamine receptors) New formulation will strip antibodies in just a few minutes at room temp. (no boiling or pungent mercaptoethanol).

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