ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Dopamine D5 Receptor (D5R) Antibodies

Cat. # D5R12-P Rat D5R Receptor Control/blocking Peptide # 2 **SIZE**: 100 ug
FORM: Soln Lyophilized

Cat. # D5R12-A Goat Anti-Rat D5R IgG # 2, aff pure **SIZE**: 100 ug
FORM: Soln Lyophilized.

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. All members of this family have similar structure and contain 7 putative transmembrane domains. A given cell or tissue may express more than one DR. Specific radioligands do not exist that can differentiate between these DR. Therefore, specific antibodies are needed to distinguish, localize, and document changes in DR levels in cells and tissues under various normal and pathological conditions.

Source of Antigen, Antibodies

Rat D5 receptor is a 475 aa, G-protein coupled, and transmembrane receptor protein.

Antigen	18aa peptide of Rat D5R ; **Designated (D5R12-P or control peptide).**
Location	Cytoplamic
Ab Host/type	Goat, polyclonal
Ab Format	Aff pure IgG (**cat #D5R12-A**)

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution — 50 ug/50 ul lyophilized powder

Buffer: 100 mM Tris, pH 7.5; 0.2% BSA contains 0.05% sodium azide
Reconstitute in the original vol. of water

Control/blocking peptide

100 ug/100 ul solution — lyophilized powder

Buffer: PBS pH 7.5, contains 0.05% sodium azide
Reconstitute in the original vol. **O**f water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

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

Stability: 6-12 months at –20oC or below.
Shipping: 4oC 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 rat D5R12-P antigenic peptide is 73% conserved in chicken and 64% in human D5R. No significant sequence homology of D5R12-P exists with other dopamine receptors (D1, D2, D3 or D4). Antibody crossreactivity with D5R 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: www.4adi.com\data\abblock.html).

General References:

Sunahara Rk et a(1991) Nature 350, 614-619; Grandy Dk et al (1991) PNAS 88, 9175-9179; Tiberi M et al (1991) PNAS 88, 7491-7495.

Citations of ADI's antibodies for DR (see updated list at: www.4adi.com\flr\dopamine.html)

*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).

(D5R12. Rev. 40123S)

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