ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Dopamine D3 Receptor (D3R) Antibodies

☐ Cat. # D3R11-P	Human Dopamine Receptor 3 (D3R) Control/blocking peptide # 1	**SIZE**: 100 ug
☐ Cat. # D3R11-S	Rabbit Anti-Human Dopamine Receptor 3 (D3R) Antiserum # 1	**SIZE**: 100 ul
☐ Cat. # D3R11-A	Rabbit Anti-Human Dopamine Receptor 3 (D3R) IgG # 1, aff pure	**SIZE**: 100 ul

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.

Human D3 receptor is a 400 aa, G-protein coupled, and transmembrane receptor protein.

Source of Antigen, Antibodies

Antigen	19aa peptide of Human D3R ; **Designated (D3R11-P or control peptide /blocking peptide**) conjugated to KLH. **Epitope location** ~ Mid-region, Cytoplamic
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (#**D3R11**-S) and IgG, purified over antigen-agarose (Cat # **D3R11**-A)
2-Ab	Cat # 20320, **goat anti-rabbit IgG-HRP** (AP, biotin, FITC conjugates also available).
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
☐ 100ul ☐ solution ☐ lyophilized
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG
☐ 100ul ☐ solution ☐ lyophilized
Supplied in **Buffer**: PBS+0.1% BSA+0.1% azide
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
☐ 100 ug/100 ul ☐ solution ☐ lyophilized
Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC.

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

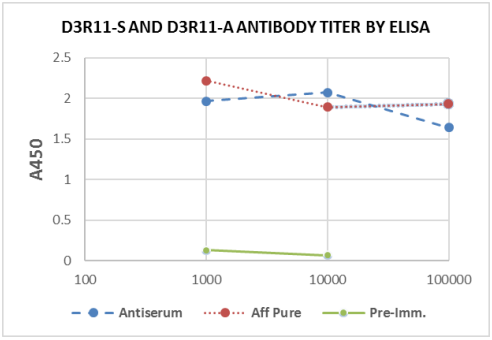
Recommended Usage

Western Blotting (1:1K-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



Human D3R11-P peptide showed no significant sequence homology with other dopamine receptors (D1, D2, D4 or D5). It is 94% conserved in monkey, 72% with mouse and 68% with rat D3R receptors. Antibody crossreactivity with D3R 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: Giros B (1990) CR Acad. Sci. Vie 311, 501-508; Schmauss C (1993) PNAS 90, 8942-8946; Liu K (1994) JBC 269, 29220-29226; Fu D (1995) DNA Cell Biol 14, 485-192; Sokoloff P (1990) Nature 347, 146-151; Giros B (1991) BBRC 176, 1584-1592; Livingstone CD (1992) Bichem J 287, 277-282.

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

Cho D-I 2003, Life Sciences, 73, 2991-300, WB, IHC, IP
Chu, Eugenia, 2000, JPET 293: 710-716, IHC,
Zeng C, 2002, Hypertension, 41, 724-729, WB, IP
Zeng C, 2004, Hypertension, 43: 673 – 679, WB, IHC, IP
Zeng C 2004, Hypertension, 43: 654 - 660 WB, IP
Ladines, CA, 2001, AJP Regul. Integ. Comp Physiol 281, R1071, wb

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

D3R11-S-A-P 161122SV

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