ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Dopamine Transporter (DAT) Antibodies

Cat # DAT11-P	Rat Dopamine Transporter/ Control peptide	**SIZE**: 100 ug
Cat # DAT11-S	Rabbit Anti-Rat Dopamine Transprter/ Antiserum	**SIZE**: 100 ul
Cat # DAT11-A	Rabbit Anti-Rat Dopamine Transprter, Ig G (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. Dopamine transporter (DAT) is plasma membrane transporter for the termination of dopaminergic neurotransmission by its high affinity Na+ and Cl-reuptake of dopamine into presynaptic terminals. This protein is the target of psychomotor stimulants such as amphetamines or cocaine. DAT (human 620 aa; rat/mouse 619 aa glycoprotein) is predicted to contain 12 transmembrane domains with N and C-termini in the cytoplasm.

Source of Antigen, Antibodies

Antigen	18aa peptide of rat DAT ; **Designated (DAT11-P or control peptide /blocking peptide**) conjugated to KLH. Epitope location ~ N-terminal, Cytoplasmic
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (#**DAT11**-S) and IgG, purified over antigen-agarose (Cat # **DAT11**-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

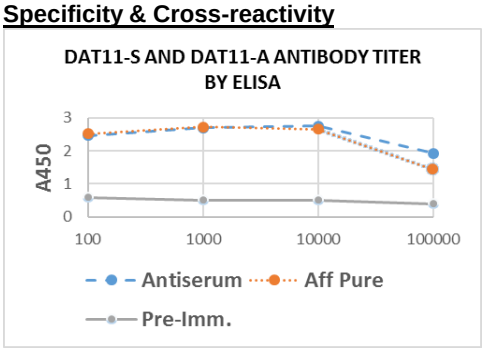
Recommended Usage

Western Blotting (1:1K-5K for antiserum and 1-10 ug/ml for affinity pure IgG using ECL). (see published refs using this antibody in 2).

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. (see published refs using this antibody in 2).

Specificity & Cross-reactivity



The DAT11-P peptide sequence is 100% identical in mouse, 77% homologous with bovine, monkey, and 72% in human DAT sequences, respectively. The antibodies have been shown to strongly react with mouse and rat and weakly with human and dog 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. Kilty, JE et al (1991) Science 254, 578-579; Giros, B et al (1991) FEBS Lett. 295, 149-154; Shimada, S et al (1991) Science 254, 576-578; Kitayama, S et al (1992) Proc. Natl. Acad. Sci. 89, 7782-7785. 2. Freed, C et al (1995) J Comp. Neurology 359, 340-349; Vaughn, RA et al (1996) J Neurochem. 66, 2146-2152; Lew, R et al (1992) Brain Res. 584, 2666-271.

Citations of ADI's antibodies for Dopamine related products (see updated list at:the web site)

kurosaki R,2004, Pharmacol. Biochem. Behavior 78, 143-153, IHC
Watanabe H, 2004, Eur. Neuropsychopharmacol. 14, 93-104, IHC
Lotharius J, 2002, JBC 277, 38884-38894, WB, IHC
Sutoo D 2003, Brain Research, 980, 24-30, IHC

*This product is for In vitro research use only.

Related material available from ADI

Antibodies for Dopamine D1, D2, D3, D4, D5

Recombinant DAT.

Anti-Rabbit IgG-HRP Conjugate and ECL Reagents

Anti-Serotonin Transporter, Anti-VMAT1/2

DAT11-S-A-P 161122SV

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com