ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

**Dopamine receptor D1 interacting protein - Calcyon (D1IP) Antibodies**

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| **Cat** # D1IP12-P | Human D1IP control peptide # 2 | **SIZE**: 100 ug |
| **Cat** # D1IP12-A | Rabbit Anti- human D1IP IgG # 2 (affinity pure) | **SIZE**: 100 ug |

**D1 dopamine receptor-interacting protein calcyon (D1IP)** is a type II single transmembrane protein. D1IP belongs to neron-specific gene (NSG) family of proteins. It is required for maximal stimulated calcium release after stimulation of purinergic or muscarinic but not beta-adrenergic receptors. The encoded protein interacts with D1 dopamine receptor (drd1) and may interact with other dopamine receptor subtypes and/or GPCRs. **Dopamine** is an endogenous catecholamine that influences many cellular activities, including behavior, hormone synthesis and release, blood pressure and intracellular ion transport.

**D1IP** (rat: 226 aa;, mouse: 226 aa; human 217 aa, 23.4 KDa, human chromosome 10q26.3) D1IP2 is expressed in the pyramidal cells of prefrontal cortex, in hypothalamus and in caudate nucleus.

**Source of Antigen, Antibodies**

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|---|---|
| **Antigen** | 17- aa peptide of Human D1IP (Protein accession # Q9NYX4 ; ref. 1); designated as D1IP12-P control/blocking peptide conjugated to KLH |
| **Epitope Location** | ~N-terminus |
| **Antibody host/type** | Rabbit, Polyclonal IgG (Cat # D1IP12-A), purified over antigen-Agarose |
| **Secondary Ab** | Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available). |
| **Negative Control Ab** | Non-immune rabbit IgG (Cat # 20009-1) to be used as –ve control for ELISA, WB, IHC etc. |

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

**Antiserum (unpurified, undiluted)**
100 ul/vial solution lyophilized powder
contains 0.05% sodium 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 vials for less than a week at 4oC.
**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:** 1-10 µg/ml; using affinity pure antibody (chemiluminescence technique).

**ELISA**: 1:100K; using 50-100 ng control peptide/well.

**Histochemistry** & Immunofluorescence: Not tested; we recommend the use of affinity purified antibody at 2-10 µg/ml.

**Specificity & Cross-reactivity**

Human D1IP12-P peptide sequence has no significant homologies to rat or mouse D1IP proteins. We recommend using antibody Cat # D1IP11-A against mouse or rat D1IP proteins. Antibody cross-reactivity in various species is not known. The 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**:

(1) Lezcano, N (2000) Science 287, 1660-1664

**List of related items, data sheets, and publications, using ADI antibodies is posted on the web site**

*This product is for in vitro research use only.

**Related material available from ADI**

Dopamine Receptors (DR1-5), DOPA Decarboxylase, Transporter (DAT)
D1IP12-A 70214J

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