

Product Specification Sheet

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

<b>Cat # D1IP11-P</b>	Mouse D1IP control peptide # 1	<b>SIZE:</b> 100 ug
<b>Cat # D1IP11-A</b>	Rabbit Anti- mouse D1IP IgG # 1 (affinity pure)	<b>SIZE:</b> 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; human 217 aa, mouse: 226 aa; 24.6 KDa, mouse chromosome 7F4) D1IP2 is expressed in the pyramidal cells of prefrontal cortex, in hypothalamus and in caudate nucleus.

**Source of Antigen, Antibodies**

<b>Antigen</b>	16- aa peptide of Mouse D1IP (Protein accession # <b>Q9DCA7</b> ; ref. 1); designated as D1IP11-P control/blocking peptide conjugated to KLH. Epitope location ~ C-terminus
<b>Antibody host/type</b>	Rabbit, Polyclonal IgG (Cat # D1IP11-A), purified over antigen-Agarose
<b>2ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>-ve control</b>	Non-immune rabbit IgG (Cat # 20009-1) to be used as -ve control for ELISA, WB, IHC etc.

**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 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**

Mouse D1IP11-P peptide sequence is 87.5% identical in rat D1IP protein. No significant homologies were found to human D1IP protein. We recommend using antibody Cat # D1IP12-A against human D1IP protein. 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: the web site).

**General References:**

(1) Dai R., Bergson C., (2003) Gene 311: 111-117

**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)

D1IP11-A 70214J