ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Dopamine receptor D1 interacting protein - Calcyon (D1IP) Antibodies

Cat # D1IP11-P	Mouse D1IP control peptide **#** 1	**SIZE**: 100 ug
Cat # D1IP11-A	Rabbit Anti- mouse D1IP IgG # 1 (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; 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

Antigen	16- aa peptide of Mouse D1IP (Protein accession # Q9DCA7 ; ref. 1); designated as D1IP11-P control/blocking peptide conjugated to KLH. Epitope location ~ C-terminus
Antibody host/type	Rabbit, Polyclonal IgG (Cat # D1IP11-A), purified over antigen-Agarose
2ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control	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^{o}C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20^{o}C or below.
Shipping: 4^{o}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% identitical 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

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