

Product Specification Sheet

VIPR2 Antibodies

Cat. # VIPR21-P	Rat VIPR control peptide # 1	SIZE: 100 ug
Cat. # VIPR21-A	Rabbit Anti-Rat VIPR2 IgG # 1 (aff pure)	SIZE: 100 ug

Vasoactive intestinal peptide (VIP) is a 28-aminoacid peptide (human, chr 6q26-q27). Expressed and secreted by neurons innervating primary and secondary immune organs such as lymph nodes with a Mol.wt of 20kD. VIP is a potent neurotrophic factor causes vasodilation, lowers arterial blood pressure, and relaxes the smooth muscle of trachea, stomach and gall bladder. VIP also modulates several T-lymphocyte activities including motility, cytokine production, proliferation and apoptosis, VIP exerts its biological activity by binding to two closely related class II G-protein-coupled receptors VPAC-1 and VPAC-2 beside this VIP has its own receptors **VIPR1&2** (Vasoactive Intestinal Polypeptide Receptor 1&2) and **VIPRRP** (VIP receptor-gene repressor protein). VIP shows similarities to glucagon, secretin and gastric inhibitory peptide (GIP) as such it has been considered a member of the glucagon-secretin family. The VIP is 100% conserved in mouse, rat and human. VIP is considered to be a viable candidate for the development of treatments for rheumatoid arthritis, since treatment with VIP significantly reduced incidence of severity of arthritis, the therapeutic effect of VIP was associated with downregulation of both inflammatory and autoimmune components of the disease.

VIPR2, a 438aa (chr.7q36.3) protein in human (437aa in rat and mouse). The VIP receptor2 is also termed as type III PACAP receptor, mainly expressed in neural tissues. This is a receptor for VIP as well as PACAP 38 and 27, G proteins mediate the activity of this receptor, which activates adenyl cyclase and can be coupled to phospholipase C. It shows 86% sequence homology with rat VIPR2.

Source of Antigen and Antibodies

Antigen	19-aa peptide from Rat VIPR2 (1) ; Designation (VIPR21-P, control peptide) ; epitope location ~ N-terminus, Extracellular domain
Ab Host/type	Rabbit, Polyclonal Aff pure IgG (cat # VIPR21-A) purified over antigen-agarose column
2-ab	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

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 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 (1-10 ug/ml for affinity pure antibody using ECL technique).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of aff pure IgG at 2-20 ug/ml.

Specificity & Cross-reactivity

The rat VIPR21-P control peptide shows 94% homology with the mouse and 86% sequence identity with human VIPR2. No significant homology of VIPR21-P is observed with VIPR1 or proteins with other species. Antibody cross-reactivity in various species has not been studied. 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) Lin Pei (1998), JBC,273, 19902-19908; Lin pei(2000) JBC, 275, 1176-1182; Bodner,M (1985) PNA,82, 3548-3551; Delgado, M (2001) Nature Med, 7, 563-568; Gotoh, E.(1998) Biochem. Int, 17, 555-562.

*This product is for In vitro research use only.

Related material available from ADI

Antibodies and Peptides: VIP, VIPRRP, Glucagon, GLP.

VIPR21-A-P

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