ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

PHM (Peptide Histidine-Methionine) Antibodies

Cat. # PHM11-P	**Human** PHM control peptide # 1	**SIZE**: 100 ug
Cat. # PHM11-A	**Rabbit** Anti-Human PHM IgG # 1 (aff pure)	**SIZE**: 100 ug

Vasoactive intestinal peptide (**VIP**) is a 28 amino acid peptide (human, chr 6q26-q27) originally isolated from procine duodenum. VIP is present not only in gastrointestinal tract but also in neural tissues, and secondary immune organs such as lymph nodes. 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 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 glucagon-secretin family consists, at present, of six peptides: glucagon, secretin, vasoactive intestinal peptide (VIP), glucose-dependent insulinotropic peptide, peptide hormone with N-terminal histidine and C-terminal isoleucine amide (**PHI-27**), and growth hormone releasing factor. Both VIP and PHI-27 are synthesized as parts of the same precursor polyprotein in human neuroblastoma cells. The human counterpart of PHI-27 has a C-terminal methionine and is, therefore, designated **PHM-27**. VIP and PHI-27 were originally isolated from porcine intestinal mucosa. DNA sequences coding for the VIP and PHM-27 hormones are located in two different exons.

PHM-27 Human sequence
His-Ala-Asp-Gly-Val-Phe-Thr-Ser-Asp-Phe-Ser-Lys-Leu-Leu-Gly-Gln-Leu-Ser-Ala-Lys-Lys-Tyr-Leu-Glu-Ser-Leu-Met-NH2 (mol wt 2985).

Source of Antigen and Antibodies

Antigen	7-aa peptide (Lys-Lys-Tyr-Leu-Glu-Ser-Leu-Met-NH2) from **Human PHM** (1); **Designation (PHM11-P, control peptide**), epitope location ~ C-terminus
Ab Host/type	Rabbit, Polyclonal Aff pure IgG (**cat # PHM11-A**) purified over antigen-agarose column
2-ab	**Goat 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 human PHM11-P control peptide shows no significant homology 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.

General References: (1) Bodner,M (1985) PNA,82, 3548-3551; Delgado, M (2001) Nature Med, 7, 563-568; Hamelink, C et al(2002) PNA Sci,99, 461-466; Hashimoto, H. et al(2001) PNA sci 98,13355-60;
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, VIPR1&2 VIPRRP, Glucagon, GLP.

PHM11-A-P 70925A

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