ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Hevb1 Antibodies and peptides

Cat. # HEVB11-P	Hevb1 Control/blocking Peptide	**SIZE**: 100 ug
Cat. # HEVB11-S	Rabbit Anti-Hevb1 peptides antiserum	**SIZE**: 100 ul
Cat. # HEVB11-A	Rabbit Anti-Hevb1 peptides IgG (affinity pure)	**SIZE**: 100 ug

Rubber (*cis*-1,4-polyisoprene), an isoprenoid polymer, is produced in about 2000 plant species. It is the raw material of choice for gloves, tires and other industrial products. Allergy to natural rubber latex products has been recognized as a serious medical problem especially among health care workers and children with spina bifida. Interestingly, there appears to be significant clinical and immunochemical cross-reactivity between some latex proteins and allergens in certain fruits and vegetables, such as banana, kiwi, avocado, and potato, and patients with fruit and vegetable allergy may be at increased risk for reacting to latex proteins. Proteins leached from the gloves or extractable latex proteins, ranging in size from 5-200 kDa, have been shown to be involved in eliciting type I hypersensitivity. *Hevea brasiliensis* has been the only commercial source of natural rubber mainly because of its abundance in the tree, its quality, and the ease of harvesting. Latex is produced in laticifers, which are specialized structures that consist of anastamosed latex-producing cells. Harvested *Hevea* latex is a complete cytosol with high protein content. Several potential allergens have been identified in Hevea latex, including rubber elongation factor (REF or **Hev b 1**), hevamine-1,3-glucanase (**Hev b 2**), **hevein** preprotein (**HEV1**), a 24-kDa rubber particle-associated protein (RPP) (**Hev b 3**), and a component of the microhelix protein complex (**Hev b 4**), a 16 kDa acidic protein **Hev b 5**, **Hev b 6**, and **Hev b 7**.

HevB1 (REF or rubber elongation factor is 138-aa protein (protein accession #P15252).

Source of Antigen and Antibodies

Antigen	3 different 15-16 aa peptides from the N-terminus, middle, and C-terminus of Hevb1 proteins (designated **HEVB11-P**; **control peptide**) corresponding to hevein/HEV1 (protein accession # P15252, refs 1), coupled to KLH
Antibody host/type	Rabbit, Polyclonal unpurified antiserum (Cat # HEVB11-S); Rabbit, Polyclonal IgG (Cat # HEVB11-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)
100ul solution lyophilized powder
Supplied in Buffer: 0.05% 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 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 (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Specificity & Cross-reactivity

HEVB1 peptides are specific to HevB1 protein. The **HEVB11-P control peptide** is available to confirm specificity of antibodies. 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 .

General References: Attanyaka DPSTG (1991) Plant Mol. Biol. 16, 1079-1081;
Dennis MS (1989) JBC 264, 18618-18623

*This product is for In vitro research use only.

Related material available from ADI

Recombinant HevB1 proteins

HEVB11-S-A-P 80603A

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