

Active Native Phaseolus vulgaris (red kidney bean) Lectin

Cat. No. Lectin-8983P **Lot. No.** (See product label)

SPECIFICATION

Product Overview

PHA consists of two molecular species, an erythroagglutinin (PHA-E) which has low mitogenic activity and high erythroagglutinin activity, and leucoagglutinin (PHA-L) which has high mitogenic and leucoagglutinating activity, but very low erythroagglutinating activity.

PHA-E is not blood group specific, but agglutination can be inhibited by certain oligosaccharides. PHA-P is the protein form of PHA prior to separation and purification of erythroagglutinin and leucoagglutinin. PHA-M is the mucoprotein form. Conjugates are prepared from the corresponding purified lectins.

EC Number: 232-718-7

NACRES: NA.32

impurities: salt, free

Species Phaseolus vulgaris

Source Red kidney bean

ProteinLength 232-718 a.a.

Description

PHAs are carbohydrate-binding proteins. There are several types of PHAs identified, predominantly in leguminous plants.

Phytohaemagglutinin (PHA, or phytohemagglutinin) is a lectin found in plants (esp. in legumes). It is obtained from Phaseolus vulgaris (red kidney beans) and acts as a mitogen in human leucocyte culture.

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Form	lyophilized powder
Bio-activity	$\leq 62.5 \mu\text{g}$ per mL agglutination activity $\leq 10 \mu\text{g/mL}$ mitogenic activity
Applications	It has also been used as an antigen to measure in vivo T-cell-mediated immune responsiveness. Lectin from Phaseolus vulgaris (red kidney bean) has been used in phytohemagglutinin (PHA) assay and during assessment of cellular and humoral immunity. Agglutination activity is expressed in mg/mL and is determined from serial dilutions of a 1 mg/mL solution. This activity is the lowest concentration to agglutinate a suspension of 2% human erythrocytes in phosphate buffered saline, pH 6.8, after 1 hr incubation at 25 centigrade. Mitogenic activity is determined by BrdU incorporation in HeLa cell cultures.
Storage	2-8 centigrade
GENE INFORMATION	
Official Symbol	PHA
Synonyms	Phytohemagglutinin PHA-P; Lectin; PHA; Phaseolus vulgaris agglutinin