

Lectin from Kidney Bean Phytohemagglutinin PHA-P

Cat: P8092

Storage: Store at -20°C. Aggregation is thought to occur in the presence of high concentrations of 2-mercaptoethanol.

Product Information

Solubility: This lectin is soluble in water (5 mg/ml).

Introduction

PHA-P is a mixture of PHA-E (MW = 128 kDa) and PHA-L (MW = 126 kDa).

Lectins are proteins or glycoproteins of non-immune origin that agglutinate cells and/or precipitate complex carbohydrates. Lectins are capable of binding glycoproteins even in presence of various detergents. The agglutination activity of these highly specific carbohydrate-binding molecules is usually inhibited by a simple monosaccharide, but for some lectins, di, tri, and even polysaccharides are required.

Lectin PHA-P is not inhibited easily by monosaccharides, but may be inhibited by oligosaccharides.

Lectins are isolated from a wide variety of natural sources, including seeds, plant roots and bark, fungi, bacteria, seaweed and sponges, mollusks, fish eggs, body fluids of invertebrates and lower vertebrates, and from mammalian cell membranes. The precise physiological role of lectins in nature is still unknown, but they have proved to be very valuable in a wide variety of applications in vitro, including:

1. blood grouping and erythrocyte polyagglutination studies.
2. mitogenic stimulation of lymphocytes.
3. lymphocyte subpopulation studies.
4. fractionation of cells and other particles.
5. histochemical studies of normal and pathological conditions.

We offer a range of lectins suitable for the above applications. Most lectins are highly purified by affinity chromatography, but some are offered as purified or partially purified lectins, suitable for specific applications.

Many of the lectins are available conjugated to (conjugation does not alter the specificity of the lectin):

1. fluorochromes (for detection by fluorimetry).
2. enzymes (for enzyme-linked assays).
3. insoluble matrices (for use as affinity media).

Please refer to the table for general information on the most common lectins.

Procedure :

A general agglutination procedure using this lectin with 96 well plates is as follows:

1. Prepare a lectin solution of 5 mg/ml in water.
2. Pipette 50 μ l of water into each well and add 50 μ l of the lectin solution into the first well.
3. Serial dilutions are made by pipetting 50 μ l from each successive well into the next well.
4. Blood type A with a 2% hematocrit is used as the substrate.
5. Pipette 50 μ l of blood into each well.
6. Visually determine agglutination.

Note

1. Unless otherwise specified, the biochemical reagents produced by our company are generally non-sterile packaged. If they are to be used for cell experiments, please conduct pretreatment in advance.
2. Once dissolved, please store the solution in separate containers to avoid product degradation caused by repeated freezing and thawing.
3. The product information is for reference only. If you have any questions, please call 400-968-6088 for consultation.
4. The products are all for scientific research use only. Do not use it for medical, clinical diagnosis or treatment, food and cosmetics, etc. Do not store them in ordinary residential areas.
5. For your safety and health, please wear laboratory clothes, disposable gloves and masks to operate.