

CELUX® Phytohaemagglutinin M (PHA-M)

Cat. no. MCCE009

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1. Product Information

Product name	CELUX® Phytohaemagglutinin M(PHA-M)
Cat. No.	MCCE009
Size	5 mg
Storage and shipping	Ice bag, the lyophilized powder can be stored at 4°C for 3 years directly, at 4°C for about two weeks after preparation into storage solution, at -20°C for six months after dispensing, and cannot be frozen or thawed repeatedly.

2. Product description

Phytohaemagglutinin (PHA) is a lectin found in plants, especially legumes, and belongs to the class of macromolecular glycoproteins, which are complexes of oligosaccharides (consisting of galactose, N-acetylglucosamine, and mannose) and proteins, with mitogenic and interferon-inducing activities. PHA is a tetrameric glycoprotein formed by the binding of four subunits through non-covalent bonds, containing two subunit molecules, L subunit (leukocyte lectin) and E subunit (red cell lectin), thus having five heterodimeric glycoproteins. PHA is a tetrameric glycoprotein consisting of four subunits bound by non-covalent bonds, and contains two subunit molecules, the L subunit (leukocyte lectin) and the E subunit (erythrocyte lectin). There are five isomers, namely, L4, L3E1, L2E2, L1E3, and E4. The L subunit has leukocyte-agglutinating and high mitogenic activity, the E subunit has high erythrocyte-agglutinating and low mitogenic activity.

PHA is currently available on the market in the form of PHA-L, PHA-E, PHA-M, and PHA-P. PHA-L is purified L4, and its main function is to act as a stimulant for T lymphocytes, which is widely used in immunological studies (e.g., as a positive control for INF- γ ICS, ELISPOT assay, or as a stimulant for PBMC cultures), and as a cis-neural tracer. PHA-L is also used as a cis-neural tracer. PHA-M has a high L1E3 and E4 activity. PHA-E is purified E4, which is mainly used for erythrocyte agglutination or glycosylation modification studies. PHA-P is the protein form of PHA before the isolation and purification of PHA-L, PHA-E, and PHA-M. It is the mucin form of phytohaemagglutinin, which is equivalent in composition and is used to stimulate the proliferation of peripheral mononuclear cells and to promote the production of certain cytokines and the expression of membrane surface proteins. It is mainly used to stimulate the proliferation of peripheral mononuclear cells and promote the production of certain cytokines and the expression of membrane surface protein.

This product is in powder form, extracted from red kidney bean plants, purified by affinity chromatography.

3. Dissolution and Use Concentration

Prepare directly in sterile PBS buffer or cell culture solution and filter through a 0.2 µm membrane. The recommended storage concentration is 5 mg/mL and the recommended working concentration to stimulate lymphoid proliferation is 2-10 µg/mL.

4. Note

4.1 For your safety and health, please wear lab coat and disposable gloves to operate.

4.2 This product is for scientific research purposes only.