

Nomenclature:

Earlier nomenclature of phytohemagglutinines mostly referred to their purification level: PHA M, e.g., was named after residual content of mucoprotein, whereas PHA P indicated the pure protein.

The recent nomenclature, however, rather refers to biological characteristics: PHA P preferably agglutinizes erythrocytes, and is therefore now termed PHA E. PHA M was similarly re-named to PHA L, due to its particularly stimulating effect on lymphocytes.

A routine test of the mitogen stimulation

Vegetable lectins are perfectly qualified for the stimulation of lymphocytes under *in vitro*-conditions. The activity of the single lectins here offered is regularly tested on peripheral human lymphocytes. Hereby a short stimulation (72 – 80 h) of the lymphocytes is effected by the respective lectin.

The resulting blast transformation and the mitosis rate are quantitatively determined by the integration of radioactive marked DNA components (mostly ³H-thymidin). To identify the optimal stimulation data the following test system is applied:

- separation of humane lymphocytes by means of Biocoll separating centrifugation
- 1 x 10⁵ lymphocytes/ml test run (0.2 ml in micro test plates)
- culture medium: RPMI 1640 with 20 mM HEPES + 10 % FBS, pre-tested FBS
- lectin: adding 10 µl/ml test run
- radioactive marking: 0.2 µCi ³H-thymidin per test run (spec. act. 2 Ci/mM)
- general culture time: 72 – 80 h at +37 °C

The processing and measuring of the radioactive marked lymphocytes are carried out by common methods. The substance quantities of the single lectins are set according to the results for maximum stimulation.

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