

THE COMPLEMENT SYSTEM: PATHWAYS OF ACTIVATIONS AND FUNCTIONS

Jelena Antić-Stanković¹, Sanja Stanković²

Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia¹
Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia²

Contact: Jelena Antić Stanković
Faculty of Pharmacy
Vojvode Stepe 450, 11 000 Belgrade, Serbia
E-mail: jelena@pharmacy.bg.ac.rs

The complement system plays an important role in host defense. It is composed of series of plasma proteins which, when activated in a sequential reaction, unleashes a powerful destructive activity towards invading pathogens. Three major pathways exist in the activation of complement: the classical pathway, which is initiated by antibody-antigen binding, the alternative pathway, which is activated by a susceptible foreign surface, and the lectin pathways, which can be triggered by mannann-binding lectins.

The complement system consists of serum and cell surface proteins that interact with one another and with other molecules of the immune system in a highly regulated manner. Complement proteins are plasma proteins that are normally inactive and they are activated only under particular conditions to generate products that mediate various effector functions of the complement. *Acta Medica Medianae 2017;56(1):50-55.*

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