

The human respiratory system is in constant contact with heterogeneous agents from the environment. There must be effective mechanical lung barriers and sufficient immune protection due to continuous deposition of various substances in the respiratory system. The mutual balance between the mechanisms of natural and adaptive immunity of the lungs is essential for destruction of infectious agents without initiation of inflammatory response. Overreaction of the immune system of the lungs may lead to the production of various inflammatory mediators and cytokines such as interleukins IL-1, IL-6 and IL-18. When determining the immunogenicity of a substance, it has to be exposed to lung epithelial cells, and then the concentration of cytokines produced is measured. To determine the immunogenicity of mammalian immunoglobulin G and chicken immunoglobulin Y the subsequent twenty-four hour exposure to A549 lung cancer cell line was made. Concentration measurement of cytokines IL-1 and IL-6 was performed using Luminex method, which pointed out the immunogenicity of goat immunoglobulin G and certain chicken immunoglobulins Y.