Abstract: Sepsi and septic shock are the leading causes of death in intensive care units worldwide. Cytokines are important regulators of the immune response, which have crucial role in sepsis pathofysiology. This work deals with proin flammatory cytokines mainly interleukin 1, interleukin 6 and TNF- α and methods of their assessment. The purpose of this work is to compare immunohistochemis try methods like ELISA and ELISPOT with assessment of intracellular cytokines by flow cytometry.