Abstract

Inducible expression systems are systems with ability to switch expression of genes of interest on and off. Therefore, they are useful molecular tools for analysis of gene function. Nowadays, there are tens of various inducible expression systems available that differ from each other in level of regulation of gene expression, time of induction, possibilities of use, etc. This work is focused on three of them to illustrate common features of the inducible expression systems which regulate gene expression at the level of transcription. Firstly, systems based on regulation of lactose operon of *Escherichia coli* are mentioned. Secondly, systems which use regulatory elements of tetracycline resistance-encoding transposon Tn*10* of *E. coli* are described. Third chapter is focused on systems regulated by agonists of ecdysone receptor. In the last chapter cases of use of inducible expression systems in the study of parasitic organisms are summarized.