## СОБЛЮДЕНИЕ ЭТИЧЕСКИХ СТАНДАРТОВ

Работа была выполнена без использования животных или участия людей в качестве объектов исследования.

## КОНФЛИКТ ИНТЕРЕСОВ

Авторы заявляют об отсутствии конфликта интересов.

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# DETECTION OF MYCOPLASMAS IN EUKARYOTIC CELL LINES BY REAL-TIME PCR USING DIFFERENT METHODS OF CONCENTRATION OF THE SAMPLE

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Detection of mycoplasma contamination in eukaryotic cell lines is an important step in the quality control of these lines. Eukaryotic cell lines are used in manufacturing of biotechnological drugs and biomedical cell products. The methods of detection that proposed in the State Pharmacopoeia are microbiological (cultural) and cytochemical

(indicator cell culture) methods. These methods take several days to complete, they are difficult to standardize, and their result can be subjectively interpreted by the operator. Molecular methods for the detection of mycoplasmas can be used as an alternative. The most widely used molecular method is PCR; it is much more express, but less sensitive. Using pre-concentration samples can solve this problem. In this study, we compared the effectiveness of different cell line concentration methods, assessed the impact of sample composition on the parameters of the concentration process, and also validated the combined detection technique using two kinds of mycoplasmas (*M. arginini* and *A. laidlawii)* as examples.

***Keywords****:* mycoplasma, PCR, biomedical cell products, cell lines contamination