

DETERMINATION OF MYCROPLASMIC CONTAMINATION BY RADIOMETRIC METHOD

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Some species of mycoplasmas are pathogenic for man, animals and plants. The problem of mycoplasmic contamination of cultivated cells used in biotechnology for producing of monoclonal antibodies and vaccines is very actual. The plasmatic membrane of mycoplasmas, which does not differ on its structural organization from a membrane of eucariotic cells, takes part in formation of strong surface antigens. Taking into account this fact, it has been investigated mycoplasmic contamination of several kinds of cotton seeds, myelome cells XAg8.653, and hybridoma cells producing monoclonal antibodies to cotton membrane proteins. Mycoplasmic contamination was determined by hybridization of DNA of investigated objects with recombinant plasmids containing mycoplasmas DNA fragments.

DNA was isolated from 5 kinds of cotton seedling, cellular cultures and hybridomas according to standard protocols. DNA was denaturated, neutralized and a reaction mix was transferred to nitrocellulose filter. Than filters were hybridized with universal plasmid sounds namely pMg16 and pAl32, which contained the mycoplasma genomic fragment. These sounds were constructed in the Institute of Cytology of Russian Academy of Science by Borhsenius S.N. at al. [1] and kindly given us for our work. pMg16 and pAl32 were preliminary marked by ^{32}P – ATP (nick – translation). Hybridization was carried out within night. Filters were washed and placed for radioautography at -70°C for 24h. Sensitivity of ^{32}P – labeled probes in reaction was 1ng of mycoplasmas DNA.

It was shown, that only one kind of cotton seeds was not contaminated by mycoplasmas, and hybridoma and myeloma cells was not contaminated. Thus, the presence of mycoplasmas in different objects may be determined using DNA hybridization.

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Reference:

1. Borhsenius S.N. et al., *Biotechnology*, 1987, т.2, №64, p. 775.



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T-STIMULATOR EFFECT ON COTTON PROTEIN COMPOSITION AND SYNTHESIS IN SALINIZATION STRESS

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T-stimulator was established to possess a wide spectrum of physiological effects, to enhance plant adaptation to thermal stress and to increase plant resistance to pathogens. Plant