

METHOD OF BACULOVIRUS DETECTION

Viral biopreparations are more and more frequently used in agricultural and fruit farming to protect plants from their pests. Biological control is used especially in areas where insects attacking crops become resistant to chemical insecticides. The most commonly used group of viruses for biological protection of plants are baculoviruses - very specific and selective in action. Since baculoviruses cannot reproduce without the host organism, their number is reduced as the number of infected insects decreases. As a result, they are not accumulated in the ecosystem, are not toxic to the environment and are completely safe for humans and animals.

The developed method is used for the detection and differentiation of baculoviruses in biological preparations and infected insects. The method is based on real-time PCR technique using nucleotide sequence of granuline and lef-9 (late expression factor) fragments of baculovirus genes. It can be used in agriculture to monitor the progress of pest control by testing the level of infection of the baculovirus insect population, as well as to search for new active agents to control plant pests. The invention can also be used in quality control in the process of biopesticide production. In comparison to current methods of baculovirus detection, the offered technology allows for a much faster and cheaper conduct of the examination, while maintaining the same accuracy of its results.

Commercialization opportunities



- ➔ Licensing agreement
- ➔ Transfer of ownership
- ➔ Partnership in order to further research or commercialization

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IP Status



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Implementation progress



TRL 4
Technology validated
under laboratory conditions