

METHOD OF PREPARING AN INACTIVATED VIRUS AND AN INACTIVATED VIRUS-BASED ANTIVIRAL VACCINE

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HONEY DATA SOC. SEMPLICE



The invention relates to the development of a preparation process for an inactivated SARS-CoV-2-based vaccine, in which the inactivation phase of the SARS-CoV-2 virus is performed by applying high hydrostatic pressures (HPP).

Protection: International

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INVENTION

Nowadays, there are different types of anti SARS-CoV-2 vaccine including chemically or thermally inactivated virus vaccines which are unable to cause the disease but are still able to induce immune responses. However, these known methods for the inactivation of viruses can cause alterations in the protein structure of the virus itself, inducing an immune response that is inadequate for immune coverage against the virus. The invention regards an inactivating method which allows to obtain an anti-coronavirus vaccine based on an inactivated virus, obtained by applying specific pressure values to the SARS-CoV-2 virus. These treatments cause the loss of the viral ability to replicate itself but without affecting alterations in the antigenic structure of the virus.

ADVANTAGES

- Extremely short times of production;
- Very low mass production costs;
- Vaccine efficacy independent of the genetic variant of the virus;
- Storage temperature between 0 ° and 4 ° C;
- Extremely simple methodology, compared to the current techniques used;
- Greater confidence in the vaccine than those obtained with other techniques (in particular those that involve operations of "genetic engineering").

CONTACTS

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APPLICATIONS

The main application of the HPP system inactivated viral preparation would be its use as a vaccine for the SARS-CoV-2 virus and, more generally, against the coronavirus family and potentially also other types of viruses.



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