



**Dophavacc<sup>®</sup>**  
*Tailor-made solutions*  
*by RIPAC-LABOR*

## Dophavacc® - Tailor made solutions for animal health

Dophavacc® is the brand name used by Dopharma for autogenous vaccines. These vaccines are made by two production facilities of which the largest is RIPAC-LABOR, located in Germany; the second one is RB VAC in Poland. Dopharma has acquired experience with the marketing and sales of autogenous vaccines since 2013 and concluded it to be of important strategic value for the future development of the company. With this in mind Dopharma acquired a majority share in RIPAC-LABOR in 2017. Since RB VAC is partly owned by RIPAC, Dopharma is also shareholder in that company.

### History

RIPAC-LABOR was started by Dagmar Kohler as a “one-women-enterprise” with veterinary diagnostics and the production of autogenous vaccines in 2002. Due to the excellent results the demand for these vaccines increased. At first the focus was on poultry diseases (like Riemerella, which represents the RI in RIPAC), but gradually the demand for vaccines in other species increased as well. This success was continued and more space and capacity was needed to fulfil the demand for these vaccines. Therefore the facility was moved to a new building with more space, where the business grew to its current state. In 2017 it was decided to sell a majority share of the company to Dopharma to further secure the growth and the international expansion of the business. Both companies are family owned businesses, which ensure a common understanding on the way to move forward in the future. More plans for further expansion and the building of a new facility are in progress.

### Autogenous vaccines

The nature of the autogenous vaccines is a chapter on itself. Due to developments in livestock farming, disease pressure might increase. The more stress for the animals, the more sensitive they will be for infectious diseases. “Forgotten” diseases might occur again, for which often no commercial vaccine is available. The autogenous vaccines are made from pathogens isolated from the farms with a specific disease. The vaccines are dedicated for this specific epidemiological unit and can contain multiple pathogens. The bacteria and viruses that are isolated, are multiplied and inactivated before they are added to the vaccine. This inactivation assures that there is no more replication in the animal after vaccination. Due to the fact that these vaccines contain inactivated pathogens, an adjuvant is usually needed to enhance the immune response to induce an solid immunity in the animals. The production and use of these vaccines is allowed under special conditions stipulated in the European legislation, if there is no commercial vaccine available to prevent a certain disease on the farm.

Looking at the above, it is fair to conclude that autogenous vaccines are a tailor made solution for a problem arising on the farm. An example of a vaccine that is often produced is against *Streptococcus suis* infection in swine, a disease that is difficult to treat and often results in antibiotic treatments. It is clear that these vaccines are a valuable addition to the arsenal of the veterinarian to treat and prevent diseases on farms, and will help to use antibiotics in a responsible way.

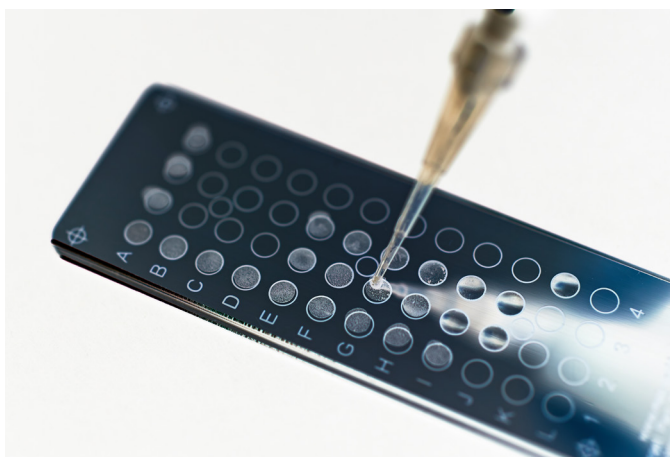


### Diagnosis and production

For the production of an effective autogenous vaccine a solid diagnosis is the key! Therefore it starts on the farm where the veterinarian is observing symptoms that indicate a certain disease. Samples are taken from the right origin (blood, organs, etc.) under the right conditions (sampling material) and will be shipped to the diagnostic laboratory, together with a description of the farm and animal conditions. On arrival these samples are used to grow the bacteria and viruses and to isolate and identify the ones that are causing the disease on the farm. In collaboration with the attending veterinarian the pathogens are chosen that will be included in the vaccine. These pathogens will have to be multiplied to produce enough antigens to constitute enough doses to vaccinate all target animals on the farm.

After harvesting the pathogens for the cultures, the antigen will be inactivated and purified. The antigen is mixed with a solvent and an adjuvant (aluminium hydroxide or oil) and will be filled in bottles that will be shipped back to the veterinarian to vaccinate the animals.

The process is complex and many steps are not mentioned in above description, but are necessary to ensure quality and compliance since every vaccine is different and tailor made for that farm! The total time involved for the diagnosis and production of the vaccine usually takes 4 to 6 weeks depending on the pathogens that were isolated.



The specific nature of the vaccines requires a pre-test on a small number of animals to observe if the vaccine gives the required results.

### Scientific experience

Within RIPAC-LABOR an extensive expertise has been acquired over the years to assist in making the right diagnoses and to refine the production process to have the best results. This was done by investing a large amount of time in research projects together with universities and other laboratories to increase the level of knowledge and expertise currently present in RIPAC-LABOR. A full team of skilled scientists is busy every day to produce these tailor made solutions.

Due to the fact that many pathogens were isolated over the last years a large amount of data has been generated on these pathogens and is stored in a specific computer database and as deep frozen samples. When new samples are coming in, they will be tested in the MALDI-TOF mass spectrometer and the specific outcome can be matched with this database therefore allowing a quick diagnosis of a variety of pathogens.

Veterinarian and biologists are available in house to advise the practitioner in the best way to have the optimal result with the autogenous Dophavacc® vaccines.



We are 100% dedicated to livestock and committed to make a significant contribution to the future of livestock farming. Our mission is to use our expertise and knowledge to support the continuous development of livestock farming. Our focus is to create innovative solutions and to manufacture high quality and effective products which are safe for animals, humans and their environment.

## Dophavacc herd specific vaccines – customised protection!

