Agencia Española de Medicamentos y Productos Sanitarios

C/Campezo 1, Edificio 8
28022 – Madrid
España
(Reference Member State)

ES/V/0272/001/DC

PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY MEDICINAL PRODUCT

PRIMUN GUMBORO

CORREO ELECTRÓNICO

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MODULE 1

PRODUCT SUMMARY

EU Procedure number	ES/V/0272/001/DC
Name, strength and pharmaceutical form	PRIMUN GUMBORO
Applicant	LABORATORIOS CALIER
Active substance(s)	Avian infectious bursal disease (IBD) virus, live attenuated, intermediate IBDV_IGS strain, 3.0 -4.5 log10 EID_{50}*
ATC Vet code	QI01AD09
Target species	Chickens
Indication for use	For the active immunisation of chickens with maternally derived antibodies (MDA) against Infectious Bursal Disease (Gumboro disease) to reduce mortality, clinical disease and acute lesions in the bursa of Fabricius.

MODULE 2

The Summary of Product Characteristics (SPC) for this product is available on the Heads of Medicines Agencies website (http://www.hma.eu).

MODULE 3

PUBLIC ASSESSMENT REPORT

Legal basis of original application	Decentralised application in accordance with Article 12.3 of Directive 2001/82/EC as amended.
Date of completion of the original decentralised procedure	24/05/2017
Date product first authorised in the Reference Member State (MRP only)	N/A
Concerned Member States for original procedure	ES, DE, IT, PL, PT

I. SCIENTIFIC OVERVIEW

For public assessment reports for the first authorisation in a range*:*

The product is produced and controlled using validated methods and tests, which ensure the consistency of the product released on the market.
It has been shown that the product can be safely used in the target species; the slight reactions observed are indicated in the SPC.
The product is safe for the user, and for the environment, when used as recommended. Suitable warnings and precautions are indicated in the SPC.
The efficacy of the product was demonstrated according to the claims made in the SPC. Finally the duration of immunity has been established (up to 28 days) through the variation ES/V/0272/001/II/001. It is stated in section 4.2 of the SPC.

The overall risk/benefit analysis is in favour of granting a marketing authorisation.

II. QUALITY ASPECTS

A. Composition

The product contains live infectious bursal disease (IBD) virus, live attenuated, intermediate IBDV_IGS strain and lactose-phosphate buffer and skimmed milk as excipients.

The container/closure system is transparent glass vials type I, which are closed with bromobutyl rubber stoppers and sealed with aluminum caps.The particulars of the containers and controls performed are provided and conform to the regulation.

The choice of the adjuvant, vaccine strain and the absence of preservative are justified.

The product is an established pharmaceutical form and its development is adequately described in accordance with the relevant European guidelines.

B. Method of Preparation of the Product

The product is manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site.

The product is manufactured in accordance with the European Pharmacopoeia and relevant European guidelines.

C. Control of Starting Materials

The active substance is infectious bursal disease (IBD) virus, live attenuated, intermediate IBDV_IGS strain, an established active substance. The active substance is manufactured in accordance with the principles of good manufacturing practice.

The active substance specification is considered adequate to control the quality of the material. Batch analytical data demonstrating compliance with this specification have been provided.

Starting materials of non-biological origin used in production comply with indicate pharmacopoeia monographs or in-house specifications.

Biological starting materials used are in compliance with the relevant Ph. Eur. Monographs and guidelines and are appropriately screened for the absence of extraneous agents according to the Ph. Eur and Guidelines; any deviation was adequately justified.

The master and working seeds have been produced according to the Seed Lot System as described in the relevant guideline.

D. Specific Measures concerning the Prevention of the Transmission of Animal Spongiform Encephalopathies

Scientific data and/or certificates of suitability issued by the EDQM have been provided and compliance with the Note for Guidance on Minimising the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Human and Veterinary Medicinal Products has been satisfactorily demonstrated.

E. Control tests during production

The tests performed during production are described and the results of 3 consecutive runs, conforming to the specifications, are provided.

F. Control Tests on the Finished Product

The tests performed on the final product conform to the relevant requirements; any deviation from these requirements is justified.

The demonstration of the batch to batch consistency is based on the results of 3 batches produced according to the method described in the dossier. Other supportive data provided confirm the consistency of the production process.

G. Stability

Stability data on the active substance have been provided in accordance with applicable European guidelines, demonstrating the stability of the active substance when stored under the approved conditions.

Stability data on the finished product have been provided in accordance with applicable European guidelines, demonstrating the stability of the product throughout its shelf life when stored under the approved conditions.

The claim of 2 hours stability after reconstitution is based on the demonstration of stability for a batch broached and stored as indicated.

H. Genetically Modified Organisms

Non applicable

J. Other Information

Non applicable

III. SAFETY ASSESSMENT

Primun Gumboro is a live attenuated vaccine, intermediate strain for chickens against avian infectious bursal disease.

Primum Gumboro is claimed for the active immunisation of chickens with maternally derived antibodies (MDA) against Infectious Bursal Disease (Gumboro disease) to reduce mortality, clinical disease and acute lesions in the bursa of Fabricius.

Laboratory trials

The safety of the administration of an overdose and the repeated administration of one dose in the target animal is demonstrated. The investigation was performed according to the recommendations of Directive 2001/82/EC as amended and the relevant guidelines. No adverse reactions were described.

No investigation of effect on reproductive performance was conducted because the vaccine is not intended for this category of animals.

The safety of the veterinary medicinal product has not been established during lay. An advertisement is included in the SPC:"do not use in birds in lay and within 4 weeks before the start of the laying period".

The study of damage of the bursa of Fabricius complies with the requirements of section 2-4-2 of the monograph 0587 *"Avian infectious bursal disease vaccine (live)".*

The vaccine does not produce inmunosuppression. The test has been perfomed according to the requirements of section 2-4-3 of the monograph 0587 *"Avian infectious bursal disease vaccine (live)".*

The vaccine virus complies with the test "increase in virulence" (section 2-4-4, monograph 587) as no indication of increasing virulence of the virus recovered for the final passage compared with the material used for the 1st was observed.

Specific studies were carried out to describe the spread, dissemination, reversion to virulence. Results are included in the SPC: "Vaccinated chickens may excrete the vaccine strain up to 7 days following vaccination. During this time, the contact of unvaccinated chickens with vaccinated chickens should be avoided".

Excipients used are insert status with reference to MRL regulation. Based on this information, no withdrawal period is proposed.

No specific assessment of the interaction of this product with other medicinal product was made. Therefore, an appropriate warning in the SPC is included.

Field studies

The applicant has performed a study to evaluate the efficacy and safety of the vaccine under field conditions, in compliance with the principles of Good laboratory Practice (GLP) and Good clinical Practice (GCP). The batch used was 1411831.

Ecotoxicity

The applicant provided a first phase environmental risk assessment in compliance with the relevant guideline which showed that no further assessment is required. The product is safe to the environment.

IV. EFFICACY

Primun Gumboro is a live attenuated vaccine, intermediate strain for chickens against avian infectious bursal disease.

Primun Gumboro is claimed for the active immunisation of chickens with maternally derived antibodies (MDA) against Infectious Bursal Disease (Gumboro disease) to reduce mortality, clinical disease and acute lesions in the bursa of Fabricius.

It is administered by drinking water from the age of 7 days onwards. The optimal day of vaccination is calculated according to the Deventer's formula using 150 as the ELISA breakthrough titre value (which is the MDA titre that has no negative impact on the protection of the vaccine).

Optimum vaccination age =
{(Log_2 IBD antibody ELISA titre of bird(%) - Log_2 breakthrough titre of the vaccine) x $t_{0.5}$} + age at sampling + correction 0-4

IBD antibody ELISA titre of bird(%):
ELISA titre of the bird (at sampling, in 1- to 4 day-old chickens.) representing a certain percentage of the flock that is desired to be susceptible to the vaccine at the time of the application

Breakthrough titre of the vaccine:
ELISA titre that the vaccine is able to breakthrough

$t_{0.5}$:
Half-life time of the antibodies (ELISA titre) in the type of chickens being sampled

Age at sampling:
Age of the birds at sampling

Correction 0-4:
Extra days when the sampling was done at 0 to 4 days of age.

IV.B Clinical Studies

Laboratory Trials

The efficacy of the product has been demonstrated in laboratory studies in accordance with the relevant requirements which show that the vaccine reduce mortality, clinical disease and acute lesions in the bursa of Fabricius.

Onset of immunity is established at 2 weeks post vaccination and duration of immunity has been established (up to 28 days) through the variation ES/V/0272/001/II/001. It is stated in section 4.2 of the SPC.

The following table shows a summary of the laboratory trials provided in the dossier:

	Laboratory studies	Nº animals	Batch
1	Immunogenicity study of the live infectious bursal disease vaccine Calier Gumbobax against challenge with a vvIBDV field strain in SPF chickens.	25/15 (vaccinated/control)	1302810 Minimum dose ($10^{3.0}$ EID_{50}/animal)

2	Study of antibody response against a gumboro vaccine (Calier Gumbobax) in birds of different origins	90/90 (SPF chickens/90 MDA chickens)	1411831 Minimum dose ($10^{3.5}$ EID_{50}/animal)
3	Duration of immunity of PRIMUN GUMBORO vaccine	Vaccinated: 75 MDA +20 SPF/Control: 80 MDA+20 SPF SPF chickens	Batch 1605759 ($10^{3.9}$ EID_{50}/ dose)

Field Trials

The applicant has performed a field study in compliance with the principles of Good laboratory Practice (GLP) and Good clinical Practice (GCP). The batch used was 1411831.
The aim of this study was to evaluate the efficacy and safety of the vaccine under field conditions. Chicken were vaccinated in the commercial farm. Because no cases of Gumboro disease were expected, some animals were transferred to laboratories facilities and then were infected with a IBDV strain.

V . OVERALL CONCLUSION AND BENEFIT– RISK ASSESSMENT

The data submitted in the dossier demonstrate that when the product is used in accordance with the Summary of Product Characteristics, the risk benefit profile for the target species is favourable and the quality and safety of the product for humans and the environment is acceptable.

MODULE 4

POST-AUTHORISATION ASSESSMENTS

The SPC and package leaflet may be updated to include new information on the quality, safety and efficacy of the veterinary medicinal product. The current SPC is available on the veterinary Heads of Agencies website (www.hma.eu).

This section contains information on significant changes which have been made after the original procedure which are important for the quality, safety or efficacy of the product.

Efficacy changes

Summary of change **(Type; application number)**	**Section updated in Module 3**	**Approval date**
ES/V/0272/001/II/001: "Duration of immunity: up to **28 days**"	IV	22/11/2018