# MEVAC™

# IB VAR 2

RESPIRATORY INTEGRITY

Live-attenuated freeze-dried vaccine for immunization against Infectious Bronchitis Virus variant-2 (GI-23)

## INTRODUCTION

The infectious bronchitis virus (IBV) is the cause of avian infectious bronchitis (IB), which is one of the most highly contagious diseases, resulting in many economic losses in the poultry industry worldwide.[1]

One emerging genotype of epidemiological importance is the GI-23 lineage (EGY VAR II-like strains) which has shown a widespread prevalence beyond the Middle East, with recent detections reported in Asia, Europe, and Africa. This spread, illustrates the ability of the GI-23 lineage to extend its geographical scope over time and emphasizes the need for comprehensive interventions at farm level.[2]

It is well established that vaccination must be associated with strict biosecurity measures applied on farms and their surrounding environments in order to mitigate the viral pressure in the poultry house. Systematic vaccination is the most suitable intervention of combatting IBV. It is accepted that vaccines containing variant 2 antigen should be adopted in those areas affected by this pathogenic strain.[2]

The use of this vaccine in layer and breeder flocks can help to mitigate respiratory signs and protect against egg production losses during the production phase. Also, the transfer of maternal antibodies to offspring can provide strain-specific immunity for one-day-old chickens.[3] One of the most commonly applied vaccination programs against infectious bronchitis (IB) in chickens in affected countries is the protectotype protocol, which consist of simultaneous or alternate use of existing vaccines with classical and variant strains of IB virus for a given IBV field situation. This successful approach decreases the need to develop new homologous vaccines, which is a costly and time-consuming endeavor.[3]

## COMPOSITION (BEFORE INACTIVATION)

- Live attenuated avian Infectious Bronchitis virus variant-2 GI-23 [Eg/1212B] strain ≥ 3.5 $\log_{10}$ $EID_{50}$/dose.

## TARGET SPECIES

Chickens.

## INDICATIONS

For active immunization of commercial chickens against Infectious Bronchitis Virus variant-2 (GI-23).

## VACCINATION PROGRAM

Birds can be vaccinated from first day of age onwards, as per advice from your poultry veterinarian.

## IMMUNITY

- Onset of immunity: 2 weeks after primary vaccination.
- Duration of immunity: until 8 weeks after single dose.

## STORAGE PRECAUTIONS

- Store and transport refrigerated (+2°C to +8°C).
- Do not freeze.
- Store in a dry place protected from direct sunlight.
- Do not use this product after the expiry date.
- Shelf life after first opening the bottle: 3 hours.

## VACCINE PREPARATION

- Vaccine shall be reconstituted with sterile water free from disinfectant and/or antiseptic.
- Shake the reconstituted lyophilisate until complete resuspension before administration.
- Do not administer less than the recommended dosage.

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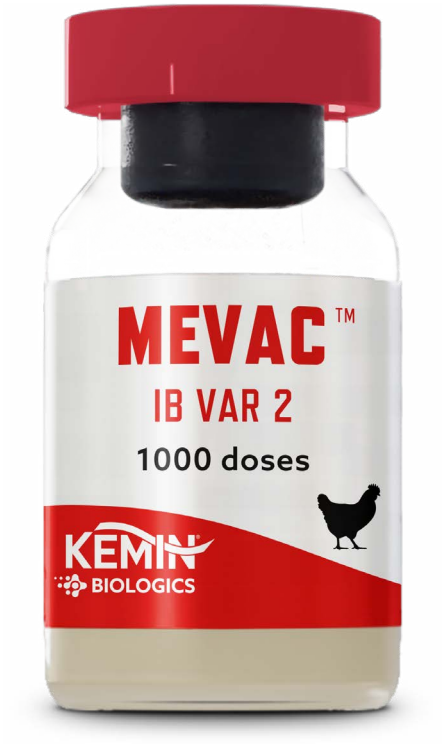


## PRESENTATION

MEVAC™ IB VAR 2 is packed and presented in vials containing a lyophilisate pellet for reconstitution (1000, 2500, 5000 doses).

## WITHDRAWAL

Zero days.

## ADMINISTRATION

The vaccine should be administered via the eye drop, spray, or drinking water routes.

- Eye drop: reconstitute 1,000 doses into 3 to 5 ml of non-chlorinated drinking water and subsequently dilute it into 30-50 ml of non-chlorinated drinking water. Use a calibrated dropper to distribute 30-50 µl-drops. Place one drop of the vaccine solution on the eye of each bird, allow the drop to spread, and release the bird.
- Spray vaccination: Spray the vaccine solution above the birds using a spray capable of producing micro-droplets (mean diameter 80-100 µm). Make sure that birds are closely confined together during spraying. The ventilation system of the poultry house should be inoperative during the spray administration.
- Drinking water: When using tap water, treat all water with skimmed milk powder at a rate of 2.5 g per liter to neutralize traces of chlorine. Distribute the vaccine solution at the time of use to birds. Birds should be deprived of water for two hours before vaccination.


### References

1. *Erfanmanesh et al (2020). Evaluation of inactivated vaccine of the variant 2 (IS-1494 /GI-23) genotype of avian infectious bronchitis. Aug; 71: 101497. Published online 2020 May 30. doi: 10.1016/j.cimid.2020.101497*
2. *Houta et al (2021). The emergence, evolution and spread of infectious bronchitis virus genotype GI-23. Archives of Virology (2021) 1669-26*
3. *Smialek et al (2017). Immunological aspects of the efficiency ofprotectotype vaccination strategy against chicken infectious bronchitis. BMC Veterinary Research (2017) 13:44 DOI 10.1186/s12917-017-0963-1.*



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