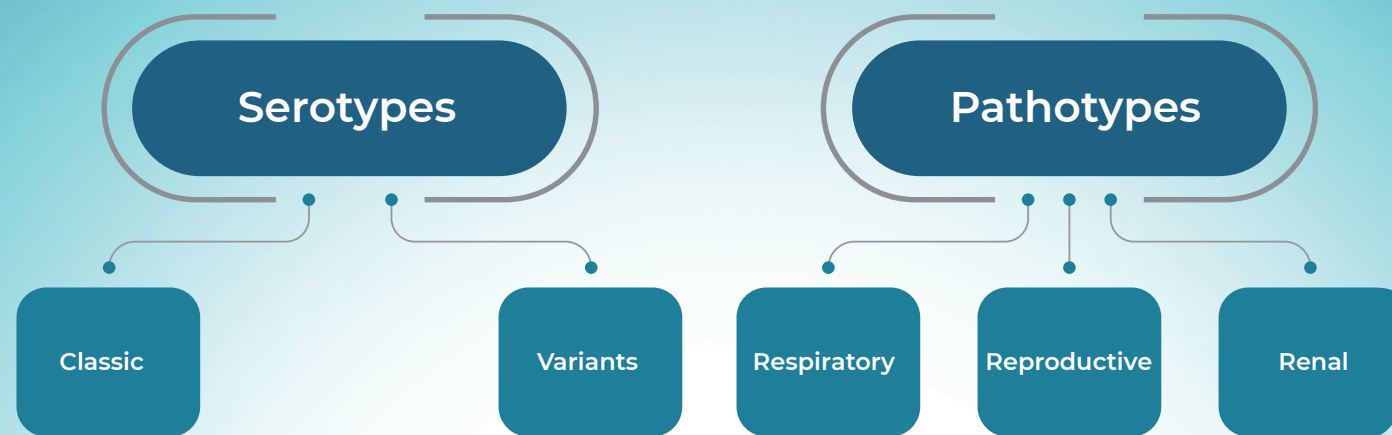


ValleyVac® IBV3 Range

MAXIMAL IBV CONTROL

Broad Protection against wide range of IBV



MINIMAL SHEDDING POST CHALLENGE

DOSE AND RECOMMENDATIONS

Dose

0.5 ml/ Bird

Recommendations

First dose to be given for layer and breeder pullets at 5 to 7 weeks of age, and booster dose after 4 weeks.



ValleyVac® IBV3 RANGE

ValleyVac® IBV3-ND7 / ValleyVac® IBV3-H9N2
ValleyVac® IBV3-H9N2-ND G7



ValleyVac® IBV3 Range

Immunogenicity and Concentration

ValleyVac® IBV3 range is unique multivalent innovative vaccines designed to develop broad range of cross protective antibodies for IBV classic and variant strains, in addition to NDV GVII / LPAI H9N2 through one vaccinal shot.

- Rapid cellular and humoral immunity through empowering by immune stimulating agent.
- Prolonged protection through unique adjuvant Montanide™ ISA 71



ValleyVac® IBV3-ND⁶⁷

- Achieves high, prolonged antibody levels against IBV (Classic & Variants) and NDV (GII/GVII) using the most

IBVs	
Strain	EID50
Classic Strain	> 10 ⁷
Variant Strain	> 10 ⁷
Variant Strain	> 10 ⁷

NDV Genotypes

Strain	EID50
NDV GVII Whole Virus	> 10 ^{8.5}
NDV GII Whole virus	> 10 ⁹

H9N2		
Strain	EID 50	HAU
G1 Lineage Middle East Isolate	> 10 ⁹	>512 HAU

ValleyVac® IBV3-H9N2

- Delivers high, sustained immunity against IBV (Classic & Variants) and LPAI H9N2, utilizing the latest field-isolated strains for ultimate flock safety.



ValleyVac® IBV3-H9N2-ND

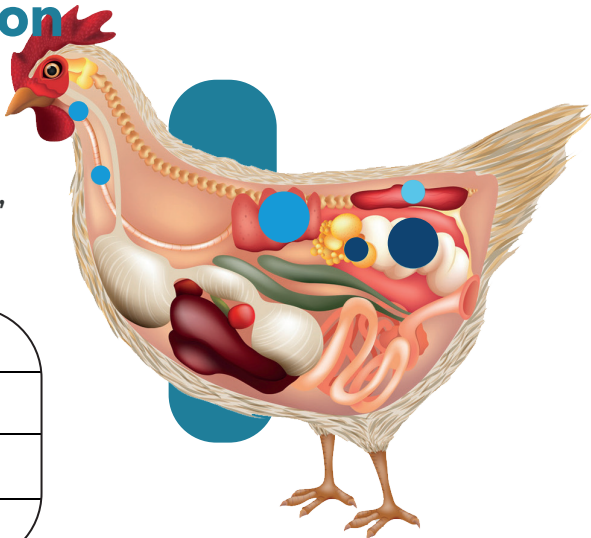
- Provides a powerful triple-action defense with high, sustained protection against the full respiratory complex (IBV, H9N2, and NDV GVII), utilizing a balanced antigenic mass of recent field isolates.

ValleyVac® IBV3 Range

Wide Umbrella Of Cross Protection

ValleyVac® IBV3 Range main target is to develop cross protecting antibodies against wide range of IBVs, causing respiratory, reproductive and renal diseases, so strains choice, was according to this target..

Strain	Target to protect
Classic Strain M41	Respiratory disease
Variant Strain ARK	Reproductive and Respiratory diseases
Variant Strain F-170	Renal and Respiratory diseases

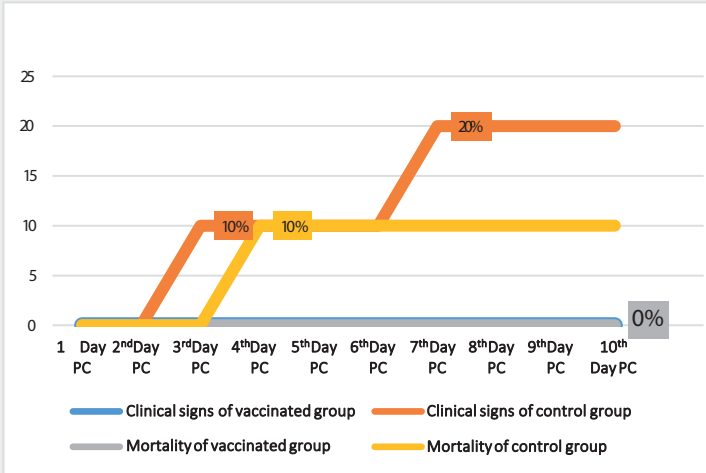


Mass 41, ARK and F-170
Wide Umbrella Of Cross Protection

Assessment Of Protection

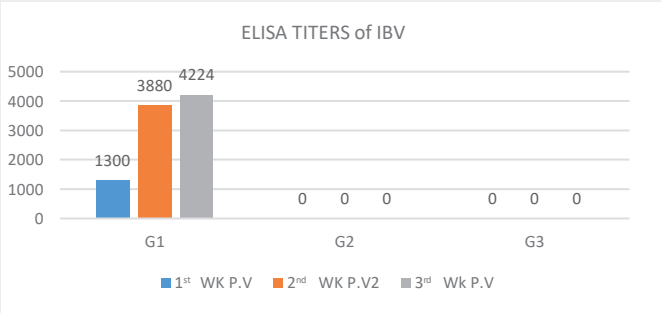
	Group 1 ValleyVac IBV3	Group 2 Positive Control	Group 3 Negative Control
Type of Birds	SPF	SPF	SPF
Number of Birds	20	20	20
Vaccine used	ValleyVac® IBV3-ND ^{G7}	-	-
Week of vaccination	3 rd week	-	-
Challenge time	3 weeks post vaccination	Same age of vaccinated group	-
Challenge Virus	VARIANT II	VARIANT II	
Parameters	• Clinical signs and Mortality • ELISA titers • Shedding assessment		

Clinical Signs & Mortality Evaluation



Graph shows significant control of clinical signs and mortality in vaccinated group compared to control group. As the vaccinated group has 0% of clinical signs and 0% of mortality, however the control +ve group has 20% had dullness clinical signs started from 3rd day post challenge and 10% mortality at 4th day post challenge.

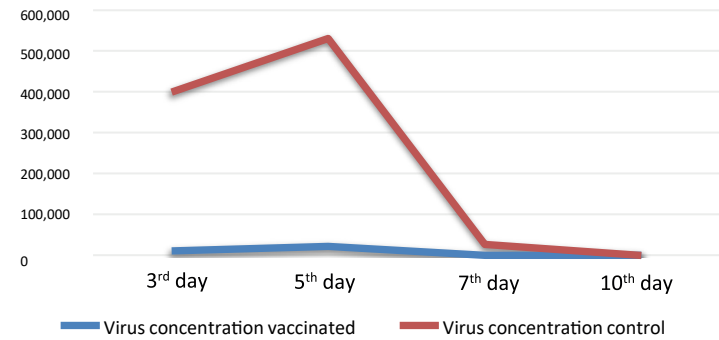
Serological Monitoring



Serological monitoring of vaccinated group before challenge revealed significant increase of humoral immunity from 1st week post vaccination and sharp increase in 2nd week post vaccination which reflects both massive antigenic mass of IBV antigen and immune stimulating agent

Shedding Assessment

Concentration of shedded virus from challenged groups



RT-PCR shedding assessment revealed full shedding control of variant virus at 7th day post challenge, which reflects immunogenicity and antibodies specificity against variant IBV.