

**UNPARALLELED BACTERIAL BRD PROTECTION**

Offers unique and comprehensive bacterial combination vaccines that provide protection against the most common Bovine Respiratory Disease (BRD)-causing bacteria.

Reveal Antigen Transport System (ATS) is a proprietary adjuvant that encases the vaccines' relevant aqueous antigens inside a protective lipid layer that:

- Allows the vaccines to include multiple Gram-negative organisms without overwhelming the immune system.
- Optimizes presentation and delivery of antigens.
- Traps endotoxin to prevent free release into the bloodstream.

POWERED BY **REVEAL ATS™**

**QUALITY ANTIGENS + IMPORTANT VIRULENCE FACTORS**

- Proprietary growing conditions optimize the expression of important cell-associated virulence factors mimicking the cell structure of the pathogenic, disease-causing organisms.
- Contains a quantified amount of leukotoxin which is considered to be the most important virulence factor in *M. haemolytica*-induced pneumonia due to its many pathologic effects on leukocytes.<sup>1</sup>

<sup>1</sup> - Confer AW, Ayalew S (2018). *Animal Health Research Reviews* 19, 79-99.

- A stable, homogenous solution that comes ready-to-use and requires no chute-side mixing.

- 2.0 mL dose, administered subcutaneously (SQ) in line with Beef Quality Assurance (BQA) recommendations.

- Available in a variety of antigen combinations to compliment and strengthen existing vaccine protocols.

**CONVENIENCE WITHOUT COMPROMISE**



U N M A T C H E D B A C T E R I A L C O V E R A G E



MOST COVERAGE



PRODUCT	MANUFACTURER	<i>Mannheimia haemolytica</i> Type A1	<i>Mannheimia haemolytica</i> Type A6	<i>Pasturella multocida</i>	<i>Hisophilis somni</i>	<i>Salmonella typhimurium</i>	Infectious Bovine Rinotracheitis	Bovine Viral Diarrhea
PRO-BAC™ 4 + IBRK & BVDK	Bimeda Biologicals	✓	✓	✓	✓		✓	✓
PRO-BAC 5	Bimeda Biologicals	✓	✓	✓	✓	✓		
PRO-BAC 4	Bimeda Biologicals	✓	✓	✓	✓			
PRO-BAC 3	Bimeda Biologicals	✓	✓	✓				
NUPLURA™ PH +3	Elanco	•					•	•
BAR-SOMNUS 2P™	Boehringer Ingelheim	•		•	•			
PRO-BAC 2	Bimeda Biologicals	✓	✓					
ONE SHOT® BVD	Zoetis	•						•
PRESPONSE® HM	Boehringer Ingelheim	•		•				
ONCE PMH® IN	Merck Animal Health	•		•				
ONCE PMH® SQ	Merck Animal Health	•		•				
NUPLURA™ PH + BVD	Elanco	•						•
PRESPONSE® SQ	Boehringer Ingelheim	•						
ONE SHOT®	Zoetis	•						
NUPLURA™ PH	Elanco	•						

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