



## VISTA® RESPIRATORY VACCINES

Vista 3 SQ | Vista 5 SQ | Vista Once SQ

For the veterinarian and producer looking to build the immune system of their cattle without sacrificing productivity, Vista respiratory vaccines offer the industry's longest proven duration of immunity against the most prevalent viral pathogens.



PRODUCT	Presentations	Dose	Route of Administration	IBR	BVD Type 1	BVD Type 2	BRSV	PI <sub>3</sub>	Mannheimia haemolytica	Pasteurella multocida
	Product Details			Viral Protection					Bacterial Protection	
Vista 3 SQ	50 dose	2 mL	SQ*	X	X	X				
Vista 5 SQ	10 dose 50 dose	2 mL	SQ	X	X	X	X	X		
Vista Once SQ	10 dose 50 dose	2 mL	SQ	X	X	X	X	X	X	X

\*Subcutaneous injection

## PRODUCT FEATURES

### Vista Respiratory Vaccines

- Duration of Immunity (DOI): 365 days for IBR, BVD Type 1 and Type 2<sup>1</sup>
- BVD Type 1b cross protection<sup>2</sup>
- Cell-Mediated Immunity (CMI) for BVD Type 1, BVD Type 2, BRSV<sup>3</sup>, IBR<sup>4</sup>
- Proven to provide BVD protection in the face of maternal antibodies (IFOMA)<sup>6</sup>
- Labeled safe for use in pregnant cows/heifers and nursing calves<sup>1</sup>
- Vista's viral antigens are grown on fetal equine serum instead of fetal calf serum eliminating the risk of off-target pathogen contamination<sup>7</sup>

### Vista Once SQ

- The only respiratory vaccine available offering avirulent-live protection against the two leading contributors to bacterial pneumonia: *M. haemolytica* and *P. multocida*
- Both viral and bacterial components of Vista Once SQ are live: modified-live virus + avirulent-live bacteria
- Proven to have lower endotoxin levels than Bovi-Shield Gold One Shot®, Pyramid® 5 + Presponse®, and Titanium® 5 + PH-M<sup>5</sup>
- The industry's leading 16-week respiratory DOI claim for *M. haemolytica* and *P. multocida*

<sup>1</sup> Data on file, Merck Animal Health

<sup>2</sup> Xue, W., Mattick, D., Smith, L., Umbaugh, J., Trigo, E. Vaccination with a modified-live bovine viral diarrhoea virus (BVDV) type 1a vaccine completely protected calves against challenge with BVDV type 1b strains. 2010 Dec 10;29(1):70-6. doi: 10.1016/j.vaccine.2010.10.012. Epub 2010 Oct 27.

<sup>3</sup> Maternal antibody blocks humoral but not T cell responses to BVDV (2003) *Biologicals* 31, 123-125. Janice J. Endsley<sup>1,2</sup>, James A. Roth<sup>2\*</sup>, Julia Ridpath<sup>3</sup>, John Neill<sup>3</sup>

<sup>4</sup> Induction of antigen-specific T-cell subset activation to bovine respiratory disease viruses by a modified-live virus vaccine. Ratreer Platt, DVM, PhD; William Burdett, DVM; James A. Roth, DVM, PhD. *AJVR*, Vol. 67, No. 7, July 2006

<sup>5</sup> 02/15 BV-VST-51134-2-VISTA-ENDOTOXIN-LOAD

<sup>6</sup> Burdett, W. W., Bolton, M. W., Kesi, L., Nordstrom, S. T., Renter, D. G., Roth, J. A., Xue, W. (2011). Evaluation of the Onset of Protective Immunity from Administration of a Modified-live, Non-adjuvanted Vaccine prior to Intranasal Challenge with Bovine Herpesvirus-. *The Bovine Practitioner*, 45(1), 32-39.

<sup>7</sup> Fetal Calf Serum - Hinnak Northoff, Willy A. Flegel<sup>®</sup>, in *Encyclopedia of Immunology* (Second Edition), 1998

## PRODUCT RESOURCES

## STOCKING CODE

Vista Mixing Instructions	BV-VST-42724
Protection against abortion caused by IBR in pregnant heifers, from a single, subcutaneous vaccination with Vista 5 SQ at pre-breeding	BV-VST-41405-IBR-ABORTION
Protection provided by a single vaccination with Vista 5 SQ at breeding against Fetal Persistent Infection (P.I.) caused by BVD Type 1 and Type 2	BV-VST-41405-BVD-PI
Vista 5 SQ Cell Mediated Immune Response to IBR, BVD Type 1 and Type 2, and BRSV Antigens	BV-VST-41405-CMI
Prevalance and Control of <i>Pasteurella multocida</i> in Calves	BV-VST-50418-VISTA-PASTEURELLA-CONTROL-CALVES
Efficacy of <i>Mannheimia haemolytica</i> and <i>Pasteurella multocida</i> fractions in Vista Once SQ in young calves	BV-VST-41405-ONCE-EFF
Vista 5 SQ Fast Facts	BV-VST-50252
Vista Once SQ Fast Facts	BV-VST-50246
Vista Endotoxin Load	BV-VST-51134-2-VISTA-ENDOTOXIN-LOAD
Vista Once DOI Comparison Chart	BV-VST-57073

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PYRAMID 5 + PRESPONSE is a trademark of Boehringer Ingelheim.  
TITANIUM 5 + PH-M is a trademark of Elanco.