



## Summary of Studies Supporting USDA Product Licensure

Establishment Name	Zoetis Inc.
USDA Vet Biologics Establishment Number	190
Product Code	2668.00
True Name	Leptospira Canicola-Grippytyphosa-Icterohaemorrhagiae-Pomona Bacterin
Tradename(s) / Distributor or Subsidiary (if different from manufacturer)	Vanguard L4 - No distributor specified Vanguard L4 - Zoetis (Thailand) Limited Vanguard L4 - Zoetis Japan Inc. Vanguard L4 - Zoetis Mexico
Date of Compilation Summary	April 20, 2023

**Disclaimer: Do not use the following studies to compare one product to another. Slight differences in study design and execution can render the comparisons meaningless.**

<b>Study Type</b>	Efficacy
<b>Pertaining to</b>	<i>Leptospira Canicola</i>
<b>Study Purpose</b>	Demonstrate effectiveness against <i>L. canicola</i>
<b>Product Administration</b>	
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	December 22, 2004

<b>Study Type</b>	Efficacy
<b>Pertaining to</b>	<i>Leptospira Grippotypohosa</i>
<b>Study Purpose</b>	Demonstrate effectiveness against <i>L. grippotypohosa</i>
<b>Product Administration</b>	
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	June 03, 2004

<b>Study Type</b>	Efficacy
<b>Pertaining to</b>	<i>Leptospira Icterohaemorrhagiae</i>
<b>Study Purpose</b>	Demonstrate effectiveness against <i>L. icterohaemorrhagiae</i>
<b>Product Administration</b>	Subcutaneously
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	December 22, 2004

<b>Study Type</b>	Efficacy
<b>Pertaining to</b>	<i>Leptospira Pomona</i>
<b>Study Purpose</b>	Demonstrate effectiveness against <i>L. pomona</i>
<b>Product Administration</b>	
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	August 20, 2004

<b>Study Type</b>	Safety
<b>Pertaining to</b>	ALL
<b>Study Purpose</b>	To demonstrate safety under field conditions
<b>Product Administration</b>	
<b>Study Animals</b>	Canine
<b>Challenge Description</b>	
<b>Interval observed after challenge</b>	
<b>Results</b>	Study data were evaluated by USDA-APHIS prior to product licensure and met regulatory standards for acceptance at the time of submission. No data are published because this study was submitted to USDA-APHIS prior to January 1, 2007, and APHIS only requires publication of data submitted after that date.
<b>USDA Approval Date</b>	January 28, 2005