



**Bureau of Laboratory Quality Standards  
Ministry of Public Health**

This is to certify that

**The laboratory of**

**Betagro Science Center Company Limited  
(Phatthalung Branch)**

**367 Moo 7, Khok Sak, Bang Kaeo, Phatthalung 93140, Thailand**

has been accepted as an

accredited laboratory complying with the ISO/IEC 17025 : 2017  
and the requirements of the Bureau of Laboratory Quality Standards

The laboratory has been accredited for specific tests

listed in the scope within the field of

**Food, Feeding Stuffs and Veterinary Diagnosis Testing**

*Patavee Soisangwan*

(Dr. Patavee Soisangwan)

Director of Bureau of Laboratory Quality Standards

Date of Accreditation : 10 February 2021

Valid Until : 9 February 2023

Accreditation Number 1301/62

The laboratory of Betagro Science Center Company Limited (Phatthalung Branch) has been accepted as an accredited laboratory in the field of food, feeding stuffs and veterinary diagnosis testing for the following scopes.

No	Type of Sample	Test	Method		
1	- Meat and Meat Products (Fresh, Chilled, Frozen, Heat Treated, Process) - Animal Carcass	1. Total Viable Count (TVC)	Compendium of Methods for the Microbiological Examination of Foods, (APHA), 5 <sup>th</sup> Edition, 2015 (Chapter 8)		
		2. Coliforms 3. <i>Escherichia coli</i> 4. Enterobacteriaceae	Compendium of Methods for the Microbiological Examination of Foods, (APHA), 5 <sup>th</sup> Edition, 2015 (Chapter 9)		
	- Seafood and Seafood Products (Fresh, Chilled, Frozen, Heat Treated, Processed) - Egg and Egg Products (Fresh, Chilled, Frozen, Heat Treated, Process) - Ready-to-Cook Foods - Ready-to-Eat Foods - Instant Food - Vegetable and Vegetable Products - Fruit and Fruit Products	5. <i>Staphylococcus aureus</i>	Nord Val Certificate No. 042		
		6. Enterococci	Nord Val Certificate No. 047		
		7. <i>Clostridium perfringens</i>	ISO 7937 : 2004		
		8. <i>Listeria monocytogenes</i>	AFNOR Certificate No. BIO 12/18-03/06		
		9. <i>Listeria spp.</i>	AFNOR Certificate No.BIO 12/18-03/06		
		10. <i>Salmonella spp.</i>	ISO 6579-1: 2017/ Amd.1:2020		
		11. Yeasts 12. Molds 13. Yeasts and Molds	Compendium of Methods for the Microbiological Examination of Foods, (APHA), 5 <sup>th</sup> Edition., 2015 (Chapter 21)		
		2	Meat and Meat Products (Fresh, Chilled, Frozen, Heat Treated, Processed)	14. <i>Campylobacter spp.</i>	AFNOR Certificate No. BIO 12/29-05/10
				15. <i>Campylobacter jejuni</i>	
	16. <i>Campylobacter coli</i>				

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No	Type of Sample	Test	Method
3	Feed and Raw material	17. <i>Salmonella</i> spp.	ISO 6579-1:2017/ Amd.1:2020
4	Environmental Sample from the Primary Production Stage - Surface swab - Sweeping swab - Boot swab - Drag swab - Egg shell - Litter - Cloacal swab	18. <i>Salmonella</i> spp.	ISO 6579-1:2017/ Amd.1:2020
5	5.1 Non-potable water - Water to be used in the factory - Supply water	19. Total Viable Count 22°C	ISO 6222: 1999
		20. Total Viable Count 36°C	
	5.2 Potable water - Drinking Water in sealed container	21. Total Viable Count 35°C	3M Petrifilm Aqua Heterotrophic (AQHC) Plate method
		22. Coliforms 23. <i>Escherichia coli</i>	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA, WEF, 23 <sup>rd</sup> Edition, 2017. Part 9221 B, 9221 E, 9221 F
	5.3 Ice	24. <i>Staphylococcus aureus</i>	Standard Methods for The Examination of Water and Wastewater. APHA, AWWA, WEF, 23 <sup>rd</sup> Edition, 2017. Part 9213 B
		25. Enterococci	Nordval International Certificate No. 047
		26. <i>Clostridium perfringens</i>	ISO 14189 : 2013
	27. <i>Salmonella</i> spp.	ISO 19250: 2010	

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6	Meat ( Fresh, Chilled, Frozen)	Antimicrobial substance residues: 28. Penicillin G 29. Sulfadimidine 30. Streptomycin 31. Erythromycin 32. Ciprofloxacin 33. Oxytetracycline	In - house method TI-B00-014 by six-plate agar diffusion assay
7	Food Industry Environment Samples - Swab test - Surface Swab - Sweeping Swab - Drag Swab	34. Total Viable Count (TVC)	Compendium of Methods for the Microbiological Examination of Foods, (APHA), 5 <sup>th</sup> Edition, 2015 (Chapter 8)
		35. Coliforms 36. <i>Escherichia coli</i> 37. Enterobacteriaceae	Compendium of Methods for the Microbiological Examination of Foods, (APHA), 5 <sup>th</sup> Edition, 2015 (Chapter 9)
		38. <i>Salmonella</i> spp.	ISO 6579-1:2017/ Amd.1:2020
8	Seafood and Seafood Products (Fresh, Chilled, Frozen, Heat Treated, Process, Animal Carcass)	39. <i>Vibrio parahaemolyticus</i>	FDA BAM Online, 2004 (Chapter 9)
		40. <i>Vibrio cholerae</i>	

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No	Type of Sample	Test	Method
9	Chicken serum	41. Infectious Bursal Disease (IBD) Antibody Test	Infectious Bursal Disease Virus Antibody Test Kit, Zoetis:40017330, March 2017
		42. <i>Mycoplasma gallisepticum</i> (MG)	Mycoplasma Gallisepticum Antibody Test Kit, Zoetis:40016489, February 2017
		43. <i>Mycoplasma synoviae</i> (MS)	Mycoplasma Synoviae Antibody Test Kit, Zoetis: 40017346, March 2017
		44. Infectious Bronchitis Virus (IBV) Antibody Test	IBV ELISA CK 119
		45. Newcastle Disease Virus ( NDV ) Antibody Test	In-house method TI-V00-004 based on The World Organization for Animal Health (OIE): 2013 (Chapter 2.3.14)
		46. Infectious Bronchitis Virus (IBV) Antibody Test	In-house method TI-V00-005 based on A Laboratory Manual for The Isolation, Identification and Characterization of Avian Pathogens, 5 <sup>th</sup> Edition, 2008
		47. <i>Mycoplasma gallicepticum</i> (MG)	In-house method TI-V00-001 based on <i>Mycoplasma gallicepticum</i> Bacterial Suspension for Rapid Agglutination Test
9	Chicken serum	48. <i>Mycoplasma synoviae</i> (MS)	In-house method TI-V00-002 based on <i>Mycoplasma synoviae</i> Bacterial Suspension for Rapid Agglutination Test

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No	Type of Sample	Test	Method
10	Swine serum	49. Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) Antibody Test	IDEXX PRRS X3 Ab Test
		50. Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) Antibody Test	AniGen PRRS Ab ELISA 4.0
11	Suspect Infectious Samples - Bronchoalveolar lavage (BAL) - Swine Organ - Swine Serum - secretion	51. Porcine Reproductive and Respiratory Syndrome Virus (PRRS) (EU, US, HP-PRRSV Strains)	In-house method TI-V00-020 based on The World Organization for Animal Health (OIE):2015 (Chapter 2.8.6)