

WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

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Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Brucellosis (Brucella abortus)
Address of laboratory:	Bacterial disease Division, Animal and Plant Quarantine Agency (APQA), 177 Hyeoksin 8-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, KOREA (REP, OF)
Tel.:	+82-54-912-0724
E-mail address:	lejj84@korea.kr
Website:	http://www.qia.go.kr
Name (including Title) of Head of Laboratory (Responsible Official):	Bong-Kyun Park(Commissioner, APQA)
Name (including Title and Position) of WOA Reference Expert:	Jin-Ju Lee (Researcher, APQA)
Which of the following defines your laboratory? Check all that apply:	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOA Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
Rose-Bengal Test(RBT)	Yes	437	
SAT	Yes	133	
I-ELISA	Yes	1564	
C-ELISA	Yes	1564	
FPA	Yes	134	
Rapid slide agglutination test(RSAT) for B.canis	No	606	

Immunochromatography test(Dip-stick) for B.canis	No	606	
Direct diagnostic tests		Nationally	Internationally
Bacterial culture	Yes	871	
PCR	Yes	103	
MLVA	Yes	70	
MLSA	Yes	70	

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOA?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOA MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
SAT antigen	SAT	Produced	2,145 ml			Asia and Pacific
indirect ELISA kit	i-ELISA	Stored	23,240 tests			Asia and Pacific
PCR test kit (Multiplex PCR)	PCR	Produced	2,000 tests			Asia and Pacific
RSAT antigen	RSAT	Produced	1,275 ml			Asia and Pacific

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA Members?

No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOA Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOA Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOA Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOA Member?

Yes

NAME OF THE WOA MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
MALAYSIA	To provide diagnostic methods	Remote (online workshop)
PHILIPPINES	To provide diagnostic methods	Remote (online workshop)
KAZAKHSTAN	To provide diagnostic methods	Remote (online workshop)
SRI LANKA	To provide diagnostic methods	Remote (online workshop)
VIETNAM	To provide diagnostic methods	Remote (online workshop)
AUSTRALIA	To provide diagnostic methods and control measures	Remote (online workshop)
NEPAL	To provide diagnostic methods and control measures	Remote (online workshop)
NEW ZEALAND	To provide diagnostic methods and control measures	Remote (online workshop)
MALAYSIA	diagnostic methods and control measures	Remote (online workshop)
MYANMAR	diagnostic methods and control measures	Remote (online workshop)
BANGLADESH	diagnostic methods and control measures	Remote (online workshop)
VIETNAM	diagnostic methods and control measures	Remote (online workshop)
SRI LANKA	diagnostic methods and control measures	Remote (online workshop)
SINGAPORE	diagnostic methods and control measures	Remote (online workshop)
INDIA	diagnostic methods and control measures	Remote (online workshop)
JAPAN	diagnostic methods and control measures	Remote (online workshop)
CHINA (PEOPLE'S REP. OF)	diagnostic methods and control measures	Remote (online workshop)
THAILAND	diagnostic methods and control measures	Remote (online workshop)
FIJI	diagnostic methods and control measures	Remote (online workshop)
PHILIPPINES	diagnostic methods and control measures	Remote (online workshop)
BHUTAN	diagnostic methods and control measures	Remote (online workshop)
BRUNEI	diagnostic methods and control measures	Remote (online workshop)

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOA Members other than the own?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

MLVA genotype data of Brucella abortus

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

National research conference and seminar

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

1

Jin Ju Lee, So-Ra Sung, Eun Ji Yum, Seong Yeob Kim, Si-Chul Kim, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Bacteriological and etiological investigation of bovine brucellosis in South Korea with importance on control strategies (J. Prev. Vet. Med., 46(1))

b) International conferences:

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1. Jin Ju Lee, Si-Chul Kim, Seong Yeob Kim, Eun Ji Yum, So-Ra Sung, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Molecular phylogenetic relations between domestic and foreign Brucella abortus strains using MLSA (2022 International Union of Microbiological Societies).
2. Jin Ju Lee, Si-Chul Kim, Seong Yeob Kim, Eun Ji Yum, So-Ra Sung, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Genetic correlations of Brucella canis strains isolated in South Korea (2022 International Union of Microbiological Societies).
3. Jin Ju Lee, Eun Ji Yum, Seong Yeob Kim, Si-Chul Kim, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Molecular phylogenetic correlations of Brucella abortus strains isolated from specific regions in South Korea (Brucellosis 2022 International Research Conference)
4. Jin Ju Lee, Jong Ho Kim, Eun Ji Yum, Seong Yeob Kim, Si-Chul Kim, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Diagnostic characterization of histopathological findings and bacterial isolation in canine brucellosis (Brucellosis 2022 International Research Conference)

c) National conferences:

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1. Jin Ju Lee, Seong Yeob Kim, Si-Chul Kim, Eun Ji Yum, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Molecular phylogenetic correlations of Brucella canis isolates in South Korea (2022 Spring meeting, Korean Society of Veterinary Preventive Medicine).

2. Jin Ju Lee, Seong Yeob Kim, Si-Chul Kim, Eun Ji Yum, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Molecular phylogenetic correlations of *Brucella canis* isolates in South Korea (2022 Spring meeting, Korean Society of Veterinary Preventive Medicine).
3. Ah-Ryeong Joe, Jin Ju Lee, Eun Ji Yum, Yoon-Jeong Seo, Ha-Young Nam, Jeong-Soo Choi, Soon-Seek Yoon (2022). Molecular genetic correlation of *Brucella abortus* Isolates from cattle and environmental sources using MLSA (2022 Autumn meeting, Korean Society of Veterinary Science).
4. Eun Ji Yum, Ah-Ryeong Joe, Ha-Young Nam, So-Ra Sung, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon, Jin Ju Lee (2022). A Comparative study on the bacterial isolation from different specimens of *Brucella canis*-infected dogs (2022 Autumn meeting, Korean Society of Veterinary Science).
5. Ha-Young Nam, Jin Ju Lee, Eun Ji Yum, Ah-Ryeong Joe, Yoon-Jeong Seo, Jeong-Soo Choi, Soon-Seek Yoon (2022). Comparison of serological tests for bovine brucellosis in South Korea (2022 Autumn meeting, Korean Society of Veterinary Science).
6. Yoon-Jeong Seo, Jin Ju Lee, Eun Ji Yum, Ah-Ryeong Joe, Ha-Young Nam, Jeong-Soo Choi, Soon-Seek Yoon (2022). Operation of ISO/IEC 17025 for international accreditation assessment of diagnosis in animal disease in APQA (2022 Autumn meeting, Korean Society of Veterinary Science).

d) Other (Provide website address or link to appropriate information):

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOA H Members?

Yes

a) Technical visit : 0

b) Seminars : 99

c) Hands-on training courses: 0

d) Internships (> 1 month) 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
B	Kazakhstan	5
B	Sri Lanka	4
B	Philippine	4
B	Malaysia	21
B	Vietnam	10
B	Australia	10
B	Nepal	4
B	New Zealand	3
B	Myanmar	4
B	Bangladesh	2
B	Singapore	6
B	India	1

B	Japan	2
B	China	9
B	Thailand	7
B	Fiji	6
B	Bhutan	3
B	Brunei	2

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO/IEC 17025	PDF	20220901_KT372_Animal_and_Plant_Quarantine_Agency_Eng.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
MRT, RBT, SAT, ELISA, PCR, Bacterial culture, Biochemical identification, Immunochromatography test, Rapid slide agglutination test	ilac-MRA

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

Maintaining the biorisk management system as a biosafety level 3 according to a legislated biorisk management regulation and a risk management policy appropriate to the nature and scale of the facility, activities, and associated biological risks. Laboratory and animal facilities managers provide a management system that ensures safe and secure handling, storage, and transport of these biological materials. The system also provides the veterinary authorities of a country or jurisdiction, with a structured process for assessing, reviewing and controlling biological risks.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOA?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOA?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
				1.Molecular phylogenetic correlations of Brucella abortus strains isolated

2022 Brucellosis international research conference	2022-09-17	Italy	presenting poster	from specific regions in South Korea 2.Diagnostic characterization of histopathological findings and bacterial isolation in canine brucellosis
Virtual WOAHP Workshop on Brucellosis Control in the Asia Pacific Region	2022-12-15	Online (South Korea)	speaker	Emergence and successful control of animal brucellosis in Korea

TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAHP Reference Laboratories designated for the same pathogen or disease?

Yes

24. Are you a member of a network of WOAHP Reference Laboratories designated for the same pathogen?

Not applicable (Only WOAHP Reference Laboratory designated for the disease)

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP Reference Laboratories designated for the same pathogen?

Not applicable (Only WOAHP Reference Laboratory designated for the disease)

26. Did your laboratory collaborate with other WOAHP Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Not applicable (Only WOAHP Reference Laboratory designated for the disease)

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAHP Reference Laboratories for the same pathogen?

No

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAHP?

29. Additional comments regarding your report:

No