

WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 3 mars 2026 09:26

LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Rabies
*Address of laboratory:	Domaine de Pixérécourt Technopôle Agricole et Vétérinaire - Bâtiment H - 54220 Malzéville Cedex FRANCE
*Tel:	+33 (0)3 83 29 89 50
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Website:	https://www.anses.fr/fr
*Name (including Title) of Head of Laboratory (Responsible Official):	Fenard
*Name (including Title and Position) of WOAH Reference Expert:	Cliquet
*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 WOAH Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
Fluorescent antibody virus neutralisation test (FAVN test)	Yes	684	120
Potency test of inactivated animal vaccines	Yes	33	0
Direct diagnostic tests			
Fluorescent antibody test (FAT)	Yes	1073	0
Real time RT-PCR	Yes	14	0
Viral RNA (Real time RT-PCR and RT PCR, N and G genes)	Yes	28	220
G gene and N gene Sequencing	Yes	14	220
Rabies virus titration (titration of oral vaccines)	Yes	0	12

TOR2: REFERENCE MATERIAL

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

Yes

			Quantity supplied	Quantity supplied at	

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Type of reagent available	Related diagnostic testing	Produced/ imported	nationwide (ml, mg)	international level (ml, mg)	Name of beneficiary WOA Member Countries
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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
Naive reference serum	Seroneutralisation	Produced	112,5 ml	351 ml	2	AUSTRIA, BELGIUM, BRAZIL, CHINA (PEOPLE'S REP. OF), FRANCE, GERMANY, ITALY, JAPAN, PORTUGAL, SPAIN, UNITED KINGDOM,
Challenge virus standard (CVS)	Seroneutralisation	Produced	0	7,5 ml	1	BRAZIL, CHINA (PEOPLE'S REP. OF),

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA Members?

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?

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

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?

No

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

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOA?

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:

Data on rabies passive surveillance collected by National Reference Laboratories - Data on oral vaccination programmes for wildlife conducted in the EU

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

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Yes

If the answer is yes, please provide details of the data collected:

Data on rabies passive surveillance collected by National Reference Laboratories - Data on oral vaccination programmes for wildlife conducted in the EU

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:

5

1/ Bessière P, Breyse R, Chrétien M, Hayes B, Boullier S, Labadie A, Rieder J, Wasniewski M, Jourdan G. Impact of general anaesthesia on immune response to first rabies vaccination in seronegative domestic cats. *Vet Rec.* 2025 Dec 26. doi: 10.1002/vetr.70223. Epub ahead of print. PMID: 41450168.

2/ Rupprecht CE, Belsare AV, Cliquet F, Mshelbwala PP, Seetahal JFR, Wicker VV. The Challenge of Lyssavirus Infections in Domestic and Other Animals: A Mix of Virological Confusion, Consternation, Chagrin, and Curiosity. *Pathogens.* 2025 Jun 13;14(6):586. doi: 10.3390/pathogens14060586. PMID: 40559594; PMCID: PMC12195927.

3/ Rathnadiwakara H, Amarasekara S, Cliquet F, Thibault JC, Jalaldeen RN, Gunatilake M. Cellular immune response against rabies vaccination in laboratory-bred dogs: A systematised review. *Lab Anim.* 2025 Jun;59(3):342-355. doi: 10.1177/00236772241300782. Epub 2025 Jan 25. PMID: 39862178.

4/ Lufo L, Picard-Meyer E, Robardet E, Shtjefni V, Cliquet F, Koli P, Çobo P. First isolation and sequencing of rabies virus detected in a red fox in Albania. *Bulg. J. Vet. Med.* 2025, 28, No 3, 468-481. doi: 10.15547/bjvm.2024-0080.

5/ Leopardi S, Dacheux L, Serra-Cobo J, Abraham Á, Bajić B, Bourhy H, Bücs SL, Budinski I, Castellan M, Drzewniokova P, Dundarova H, Festa F, Kergoat L, Leuchtmann M, López-Roig M, Pontier D, Priore MF, Robardet E, Scaravelli D, Zecchin B, Lanszki Z, Görföl T, Kemenesi G, De Benedictis P. European distribution and intramuscular pathogenicity of divergent lyssaviruses West Caucasian bat virus and Lleida bat lyssavirus. *iScience.* 2025 Jan 2;28(2):111738. doi: 10.1016/j.isci.2024.111738. PMID: 39898037; PMCID: PMC11787528.

b) International conferences:

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1/ Picard-Meyer E. Inter-Laboratory Assay: Assessment of the performance of pan-lyssavirus real-time RT-PCR tests in the European Union's National Reference Laboratories. 16th Workshop for Rabies Paris, France, 10-11 June 2025.

2/ Wasniewski M and Robardet E. Collaborative study on the rabies antibody detection in wildlife samples in Europe. 16th Workshop for Rabies Paris, France, 10-11 June 2025.

3/ Wasniewski M and Robardet E. Collaborative study on the rabies antibody detection in wildlife samples in Europe. XXXVI Rabies in the Americas Conference - RITA 2025 Lima, Peru. October 19 - 24, 2025.

4/ Rathnadiwakara H, Thibault JP, Cliquet F, Wasniewski M, Ijas M, Gunatilake M. Comparison of the immunogenicity of selected anti-rabies vaccines in Sri Lankan field dogs 50th World Small Animal Veterinary Association World Congress (WSAVA 2025) September 25-27, 2025, Rio De Janeiro, Brazil.

5/ Servat, Alexandre, Estelle Litaize, Sébastien Kempff, Valère Brogat et Emmanuelle Robardet. 2025. Technical evaluation of rapid kits for rabies diagnosis. XXXVI Rabies in the Americas Conference - RITA 2025 Lima, Peru. October 19 - 24, 2025.

6/ Robardet E, Smreczak M, Orłowska A, Malik P, Nándori A, Díršáková Z, Odaloš R, Rudoj O, Polupan I, Groza O, Arseniev S, Barbuceanu F, Vuta V, Picard-Meyer E. Sylvatic Rabies re-emergences in Central Europe. First GF-TADs Regional Conference of Standing Groups of Experts on priority transboundary animal diseases in the European region, Belgrade, Serbia, 23 – 25 September 2025.

7/ Cliquet F : Measures to prevent rabies resurgence in the EU. First GF-TADs Regional Conference of Standing Groups of Experts on priority transboundary animal diseases in the European region, Belgrade, Serbia, 23 – 25 September 2025.

c) National conferences:

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

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1/ Kempff, Sébastien, Estelle Litaize, Valère Brogat, Nathalie Stroucken, Evelyne Picard-Meyer et Alexandre Servat. 2025. Bilan de la surveillance des infections à Lyssavirus chez les chiroptères en France métropolitaine: 15 cas détectés en 2024. Rapport annuel.

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit : 2

b) Seminars : 0

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
A	MOROCCO	1
A	UKRAINE	1

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISI 17025 et MJA	pdf	Audit Attestation_EDQM-MJA-195_MJA0124.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Rabies virus neutralisation test (FAVN test)	COFRAC (since Feb 2008)
Rabies diagnosis (FAT)	COFRAC (since Feb 2012)
Rabies diagnosis (RTCIT)	COFRAC (since Feb 2012)
Rabies Real time RT-PCR (SybrGreen)	COFRAC (since Feb 2020)
Rabies conventional RT-PCR	COFRAC (since Feb 2020)
Potency test of rabies inactivated vaccines for veterinary and human use (challenge and serological tests)	EDQM (since March 2008)
Potency test of rabies vaccines (live, oral) for foxes and raccoon dogs	EDQM (since March 2008)

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

Yes

Procedures for working with live rabies virus. P3 laboratory facilities. Vaccination against rabies and regular serological testing following WHO recommendations.

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?

No

TOR10: NETWORK WITH WOA REFERENCE LABORATORIES

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

Yes

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOA REF. LABS
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WOAH RABLAB network	Participating together with other WHOA rabies experts to the goal of Zero human cases mediated by dog rabies by 2030	12	All WOAH Ref. labs. for rabies
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25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAH Ref. Labs/ organising WOAH Ref Lab
Proficiency test for rabies diagnosis (in 2025)	Coordinator and participant	31	3
Evaluation of laboratories for rabies diagnosis (in 2025)	Coordinator	7	0

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

No

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Inter-laboratory evaluation on Panlyssavirus Q-PCR methods for rabies diagnosis (in 2024)	Coordinator and participant	18	Pan-lyssavirus Q-PCR	FRANCE, GERMANY, ITALY, ROMANIA,

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Technical questions on rabies	On line	International standard serum of dog origin, statement for vaccine quality, international movements of pets, etc...

29. Additional comments regarding your report:

No