



TSE EURL

Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta – Torino
Istituto Superiore di Sanità – Roma

PROFICIENCY TESTING FOR VETERINARY LABORATORIES

Results tabulation for PT DS21: Discriminatory western blot in small ruminant

Distribution date: 06/12/2021

Lab. ID	Date of receipt	Date of testing	Test method used	Kit Manufacturer	Batch	Expiry date	Antibodies used	Batch	Expiry date
041	08/12/2021		Bio-Rad Discriminatory Test (based on the CEA Discriminatory Western blot Method)	BIORAD	1C0035	17/08/2022	Ab CONTROL	1C0035	21/09/2022
							Ab TEST	1C0035	21/09/2022
118	08/12/2021	02/02/2022	APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Bio Rad	0L0046	07/04/2022	AB 1 SHA & AB 2 P4	0L0046	07/04/2022
							P4	350315	giu-22
							HRP	64322730	30/12/2022
176	09/12/2021		APHA Prionics-based Hybrid Western blot Method	Thermo Fischer Scientific	W200101G	31/01/2021	6H4	W200101G45	31/01/2021
							P4	450712	01/07/2017
182	08/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Bio-Rad (we uses an in house WB with Bio-Rad TeSeE s/g digestion step, 5 x PK)	1K0045	18/11/2022	Sha31		31/12/2022
							P4		31/12/2022
188			Bio-Rad Discriminatory Test (based on the CEA Discriminatory Western blot Method)	Bio Rad	1C0035	17/08/2022	Ab ctrl	1C0035	17/08/2022
							Ab test	1C0035	17/08/2022
188*			APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Bio-Rad	1C0047	17/08/2022	P4	R8008	17/09/2022
							Ab2(Goat anti-mouse IgG)	6421780	15/08/2021
287	07/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Bio Rad	1H0048	01/01/2023	SHA31	1H0048	44927
							mAbP4	R8007	2022.06
341	09/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Bio-Rad	1C0047	17/08/2022	P4	350315	30/06/2022
352	02/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	BIO-RAD	1C0047	11/02/2022	SHA31	1C0047	17/08/2022
							P4	2390320	2022. July
352*			FLI Discriminatory Western blot Method	BIO-RAD	1C0047	17/08/2022	SHA31	1C0047	17/08/2022
							L42	7750818A	2022. July
366	08/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Bio-Rad	0L0046	07/04/2022	P4	350315	giu-22
							Sha31	64403983	02/03/2024
469	09/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Bio Rad	1C0047	17/09/2022	Anti-PrP Mab (SHA31)	1C0047	21/09/2022
							P4 (R-Biopharm)	350315	30/06/2022
469*			Bio-Rad Discriminatory Test (based on the CEA Discriminatory Western blot Method)	Bio Rad	1C0035	17/08/2022	Control Ab	1C0035	21/09/2022
							Test Ab	1C0035	44825
565	09/12/2021		FLI Discriminatory Western blot Method	In House	Not relevant	Not relevant	Mab L42 / Mab P4	In House	Not relevant
601	07/12/2021		ISS Discriminatory Western blot Method	nd	nd	nd	SAF84	120	17/02/2023
							P4	350315	30/06/2022
601*			APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Biorad	1C0047	17/08/2022	Sha31	1C0047	21/09/2022
							P4	350315	30/06/2022
910	10/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	TeSeE Western Blot BioRad - CEA	1C0047	17/08/2022	SHA31 / AbII	1C0047	21/09/2022
							P4	2390320	01/07/2022
933	09/12/2021	14/12/2021	APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	BIO-RAD	0L0046	07/04/2022	SHA31	0L0046	07/04/2022
							P4		
954	09/12/2021		APHA Prionics-based Hybrid Western blot Method	Thermofisher	W200201G	22 Prolonged exp d	6h4	W200201G	01/05/2022
							P4	NA	NA
983	09/12/2021	05/02/2022	ANSES Discriminatory Western blot Method	TeSeE WB for extraction	1C0047	17/08/2022	BAR233	REF	22/01/2023
							P4	P4/12	27/01/2023
985	09/12/2021		APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	Biorad	1C0047	17/08/2022	SHA31		21/09/2022
							P4		2022-06
995	07/12/2021	14/01/2022	APHA Bio-Rad TeSeE-based Hybrid Western blotting Method	BioRad	1C0047	18/08/2022	Sha31	From kit above	18/08/2021
							P4	C13264	13/10/2023

*1st alternative test **2nd alternative test

PROFICIENCY TESTING FOR VETERINARY LABORATORIES

Results tabulation for PT DS21: Discriminatory western blot in small ruminant

Distribution date: 06/12/2021

Lab. ID	Sample No.	Result	Comments	Sample No.	Result	Comments	Sample No.	Result	Comments	Sample No.	Result	Comments	Sample No.	Result	Comments
041	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
118	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
176	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
182	DS2101	classical scrapie	similar reactivity with Sha31 and P4	DS2102	classical scrapie	similar reactivity with Sha31 and P4	DS2103	classical scrapie	similar reactivity with Sha31 and P4	DS2104	BSE not excluded	reactivity with Sha31 and strongly reduced reactivity with P4	DS2105	classical scrapie	similar reactivity with Sha31 and P4
188	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie	dot blot working dilution 1:2 in both low and high conditions	DS2104	BSE not excluded	normally, in this case, we will sent the sample to EURL for confirmation	DS2105	classical scrapie	dot blot working dilution 1:2 in both low and high conditions
188*	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
287	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
341	DS2101	classical scrapie	Sha31: +++, classical profile, deglycosylated band high; P4: +++)	DS2102	classical scrapie	Sha31: +++, classical profile, deglycosylated band high; P4: +++)	DS2103	classical scrapie	Sha31: +++++, classical profile, deglycosylated band high; P4: +++++	DS2104	BSE not excluded	Sha31: +++, classical profile, deglycosylated band low; P4: -	DS2105	classical scrapie	Sha31: +++, classical profile, deglycosylated band high; P4: +++)
352	DS2101	Classical scrapie		DS2102	Classical scrapie		DS2103	Classical scrapie		DS2104	BSE like		DS2105	Classical scrapie	
352*	DS2101	Classical scrapie		DS2102	Classical scrapie		DS2103	Classical scrapie		DS2104	BSE like		DS2105	Classical scrapie	
366	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
469	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded	Lower weight of the unglycosylated band with SHA31 mAb and signal reduction with P4 mAb	DS2105	classical scrapie	
469*	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded	With control Ab, lower weight of the unglycosylated band, specially for the low concentration. With test Ab, signal reduction with the high concentration.	DS2105	classical scrapie	
565	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
601	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
601*	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
910	DS2101	classical scrapie	2,964	DS2102	classical scrapie	2,3	DS2103	classical scrapie	3,343	DS2104	BSE not excluded	1,563	DS2105	classical scrapie	>3,500; (1/10 dilution) 1,181
933	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded	Low molecular mass migration compare to ovine classical scrapie with SHA31 and lack of signal with P4.	DS2105	classical scrapie	
954	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
983	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	
985	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded	lower migration with core antibody compared to classical scrapie and very weak signal with N-terminal antibody	DS2105	classical scrapie	
995	DS2101	classical scrapie		DS2102	classical scrapie		DS2103	classical scrapie		DS2104	BSE not excluded		DS2105	classical scrapie	

*1st alternative test **2nd alternative test

Sample ID	Intended
DS2101	Classical scrapie
DS2102	Classical scrapie
DS2103	Classical scrapie
DS2104	BSE not excluded
DS2105	Classical scrapie

Comments :

provided by Gabriele Vaccari, Istituto Superiore di Sanità - Rome

All laboratory reported the correct results, with the exception of laboratory 143 that didn't send the results.

Laboratory **352** didn't report the correct definition of method used. The laboratory was asked to provide detailed information. The data provided was satisfactory.

Laboratory **352** declared to use as 1st alternative test method, a method that do not correspond to the protocol reported for such a method on the "TSE Strain Characterisation in small ruminants – A Technical handbook for NRL in the EU"

Laboratory **910** didn't report the correct definition of method used. The laboratory was asked to provide detailed information. The data provided was satisfactory.

Conclusion:

In summary laboratory **143** didn't participated to the PT, all the other laboratories have passed it.

Laboratory **143** can perform discriminatory testing after the successfully participation to a further PT round.

The first alternative method used by laboratory **352** should not be used for discriminatory testing

Please remember that discriminatory testing must be performed following the protocols and the procedures as reported in the Technical handbook.

Giuseppe Ru, director of TSE EURL