

19th Annual Meeting of the TSE EURL Turin, 17th – 18th October 2022

2021 round of TSE EURL EQAs: Results feedback

Confirmatory BSE and Scrapie Immunoblotting

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NRLs participating in Proficiency Testing 2021

23 laboratories for Confirmatory BSE

24 laboratories for Confirmatory Scrapie

BSE

Austria, Belgium, Bulgaria,
Croatia, Czech Republic, Finland,
France, Germany, Greece,
Hungary, Ireland, Italy, The
Netherlands, Norway, Poland,
Portugal, Romania, Slovakia,
Slovenia, Spain, Sweden,
Switzerland and United Kingdom

Scrapie

Austria, Belgium, Bulgaria,
Croatia, Czech Republic, Finland,
France, Germany, Greece,
Hungary, Ireland, Iceland, Italy,
The Netherlands, Norway, Poland,
Portugal, Romania, Slovakia,
Slovenia, Spain, Sweden,
Switzerland and United Kingdom



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Planning

- Each NRL has been identified with a code, different for the two PTs
- Each round included 5 samples of frozen brainstem homogenates
- The samples were stored at $-80(\pm 10)$ °C until shipment by the courier on dry ice
- The set of samples included information on their preparation, manipulation and transmission of the results (deadline, forms)



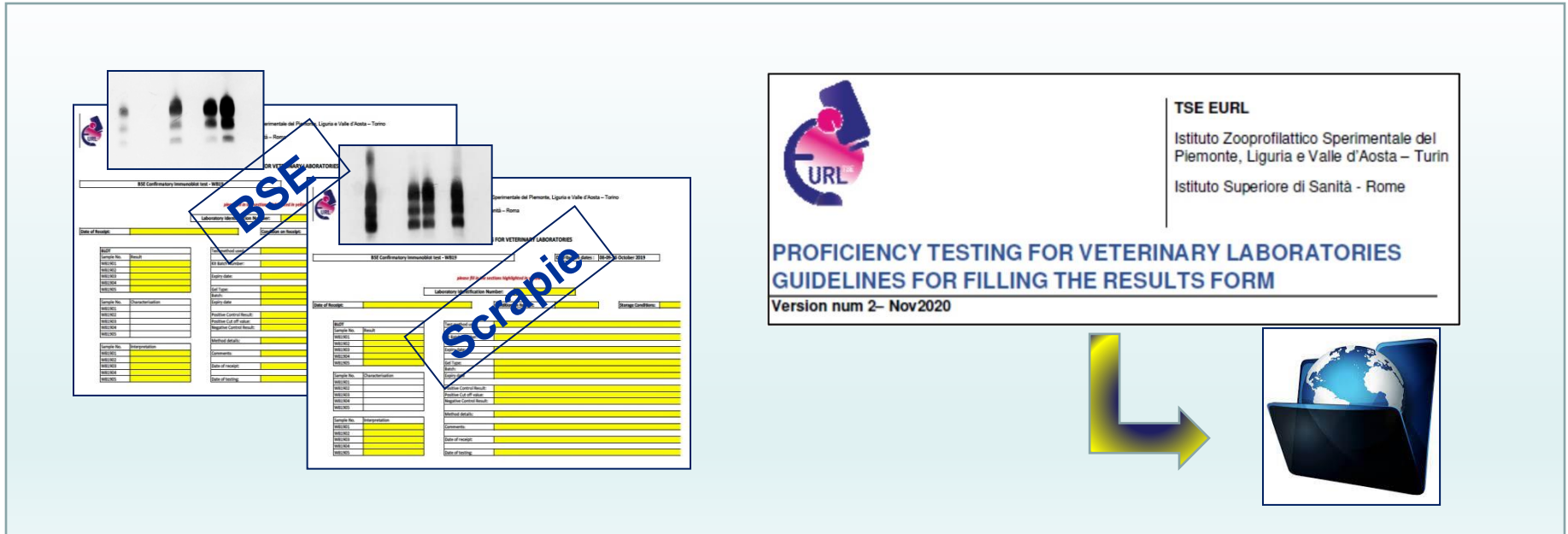
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Shipping and Transmission results

The samples were shipped on 13th and 14th December 2021

The deadline for submission of results was on 7th February 2022




BSE

Scrapie

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**PROFICIENCY TESTING FOR VETERINARY LABORATORIES
GUIDELINES FOR FILLING THE RESULTS FORM**

Version num 2- Nov2020



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BSE CONFIRMATORY IMMUNOBLOTTING

The samples provided for the TSE quality assessment are homogenates of brainstem material from a panel of BSE-positive and BSE-negative animals

The tissue have been homogenised using a 50/50 mix of tissue and distilled water

Sample No	Result	Interpretation
WB2101	positive	strong
WB2102	negative	////
WB2103	negative	////
WB2104	negative	////
WB2105	negative	////

Sample WB2102 = sample WB2103 = sample WB2104 = sample WB2105



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SCRAPIE CONFIRMATORY IMMUNOBLOTTING

The samples provided for the TSE quality assessment are homogenates of brainstem material from a panel of Scrapie-positive and Scrapie-negative animals

The tissue have been homogenised using a 50/50 mix of tissue and distilled water

Sample No	Result	Interpretation	Characterisation
WS2101	negative	////	///
WS2102	positive	medium	classical scrapie
WS2103	negative	////	///
WS2104	positive	medium	classical scrapie
WS2105	negative	///	///

Sample WS2101 = sample WS2103 = sample WS2105

Sample WS2102 = sample WS2104



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EURL EQA round 2021: Quality Control

Confirmatory BSE and Scrapie Immunoblotting



ISO 17034
ISO 17043

Homogeneity

Stability



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Transmission of the results

- All NRLs submitted the results of both PTs by 7th February 2022
- The submission included the raw data (pictures of the blots, readings), the information about the kit batches used for the analysis plus any information considered important for the correct interpretation of the results



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Processing of results

Elaboration of a report with the PTs results



Correct results

laboratories suitable to perform confirmatory tests



Incorrect results

analysis on a new set of samples



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Results Tabulation for BSE Confirmatory Immunoblot Scheme: WB21

Primary Tests	No. NRLs
TeSeE Western Blot - Bio-Rad	17
PrioWestern BSE Kit - ThermoFisher Scientific	2
In house method	2
OIE SAF immunoblot	1
APHA Bio-Rad Hybrid Western Blot §	1

§ APHA Biorad Hybrid: used mAbs Sha31 e P4



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Results Tabulation for BSE Confirmatory Immunoblot Scheme: WB21



**TeSeE Western Blot Bio-Rad used two batches
1C0047 – 0L0046**

ThermoFisher
SCIENTIFIC

**PrioWestern BSE Kit – ThermoFisher Scientific used two batches
W200201G – W200101G**



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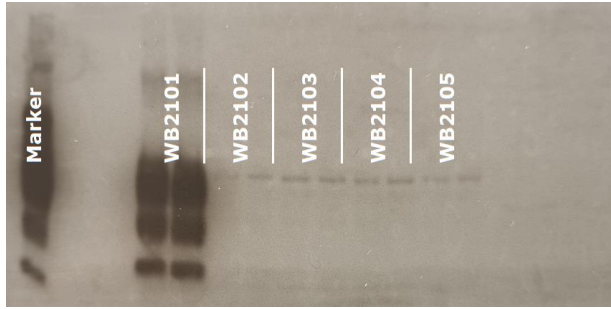
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WELL DONE!!!

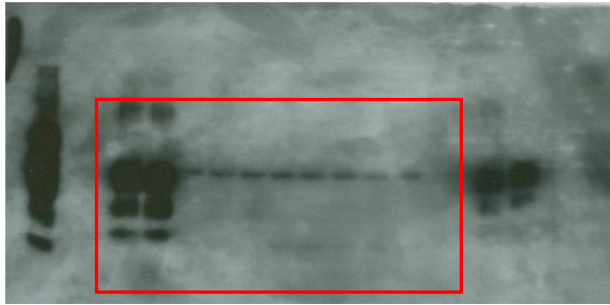
BSE confirmatory Immunoblot – Scheme WB21

All laboratories have passed this PT round

PrioWestern – Lab. 92

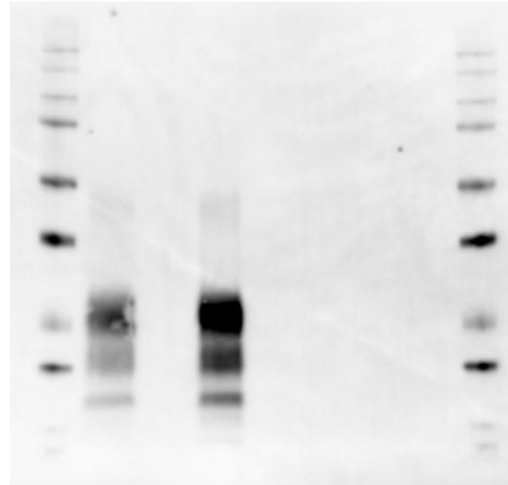


PrioWestern – Lab. 378



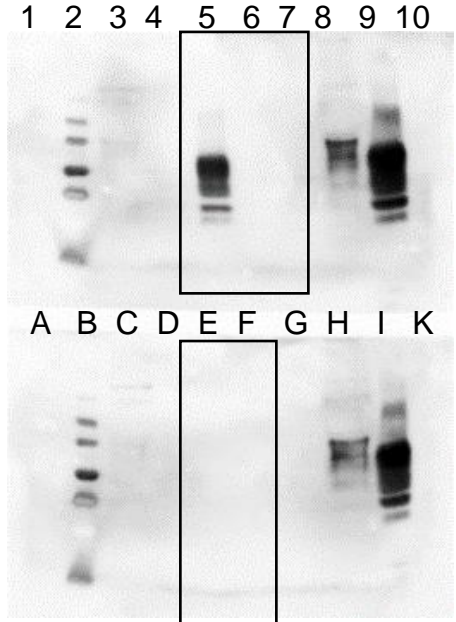
TeSeE Western Blot Lab. 564

MW
BP35-03
BN26-02
46865 – WB2101: Positive
46866 – WB2102: Negative
46867 – WB2103: Negative
46868 – WB2104: Negative
46869 – WB2105: Negative
MW



BP35-03: Internal control BSE Positive
BN26-02: Internal control BSE Negative

OIE IB method – Lab. 648



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Confirmatory BSE and Scrapie Immunoblotting

Results Tabulation for Scrapie Confirmatory Immunoblot Scheme: WS21

Primary Tests	No. NRLs
TeSeE Western Blot Bio-Rad	15
PrioWestern BSE/TeSeE Western Blot	1
APHA Bio-Rad Hybrid §	2
In house method	3
OIE SAF immunoblot	1
TeSeE Western Blot modified*	1
PrioWestern BSE Kit - ThermoFisher Scientific**	1

§ APHA Bio-Rad Hybrid: 2 mAbs Sha31 and P4

* TeSeE Sheep/Goat kit for extraction

**PrioWestern BSE Kit: used 2mAbs 6H4 and P4



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Results Tabulation for Scrapie Confirmatory Immunoblot Scheme: WS21



**TeSeE Western Blot Bio-Rad used two batches
1C0047 – 0L0046**

ThermoFisher
SCIENTIFIC

**PrioWestern BSE Kit – ThermoFisher Scientific used two batches
W200101G – W200201G**



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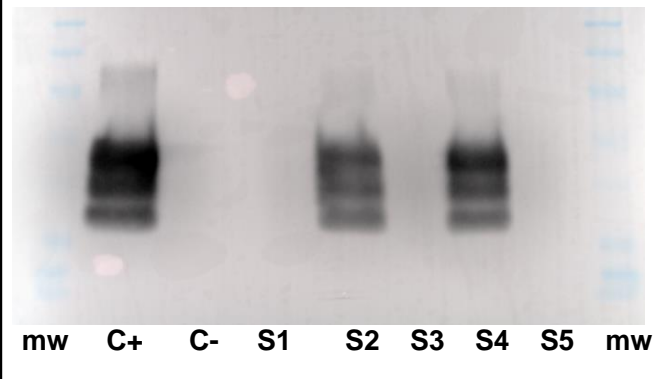
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Scrapie confirmatory Immunoblot – Scheme WS21

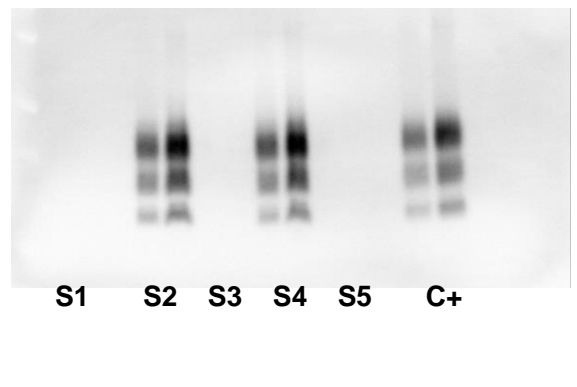
All laboratories have passed this PT round except laboratories 363 and 855 (defined WS2102 as negative)

WELL DONE!!!

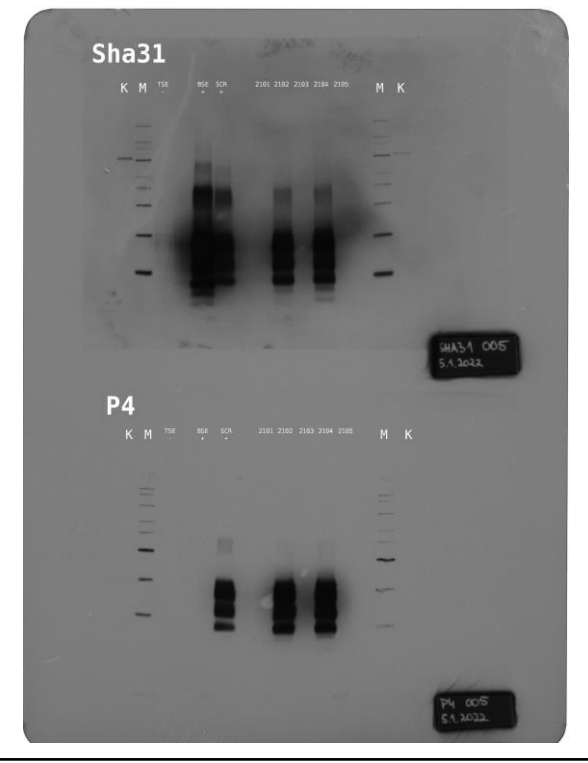
TeSeE Western Blot modified – Lab. 804



TeSeE Western Blot – Lab. 519



APHA Bio-Rad Hybrid – Lab. 164



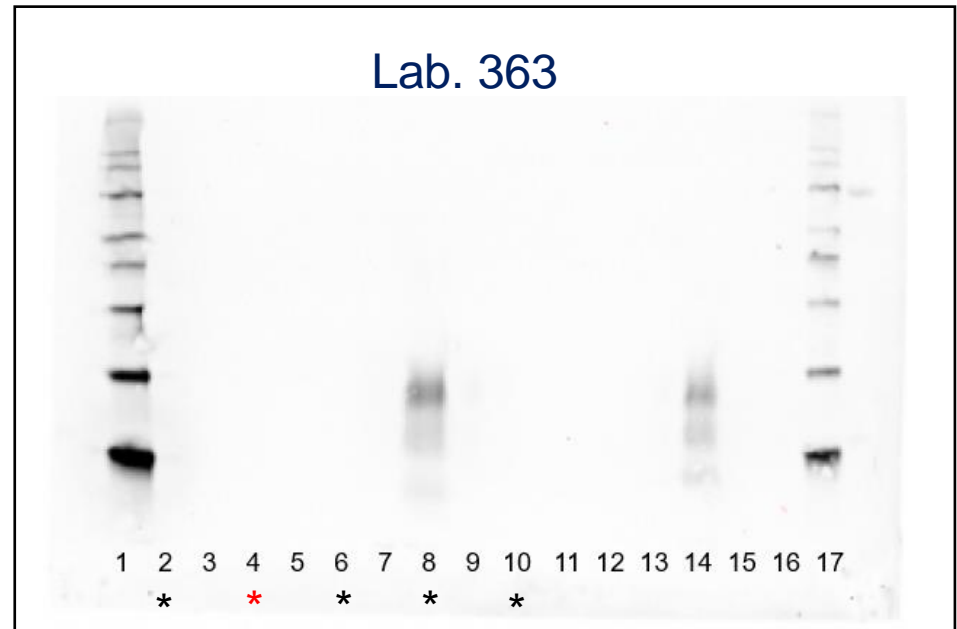
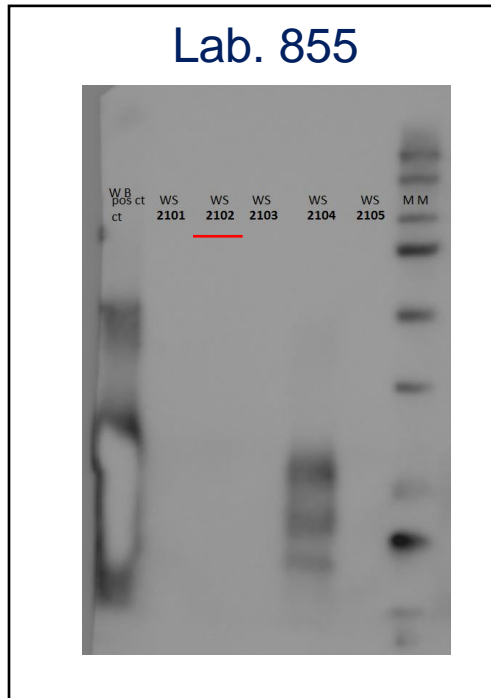
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Non-compliant results for labs. 363 and 855

1st round

WS2102 defined as negative by both laboratories



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Laboratories 363 and 855

2nd round

Sample No	Result	Interpretation	Characterisation
WS2106	positive	medium	classical scrapie
WS2107	negative	////	////
WS2108	positive	medium	classical scrapie
WS2109	negative	////	////
WS2110	negative	////	////

Sample WS2107 = sample WS2109 = sample WS2110

Sample WS2106 = sample WS2108

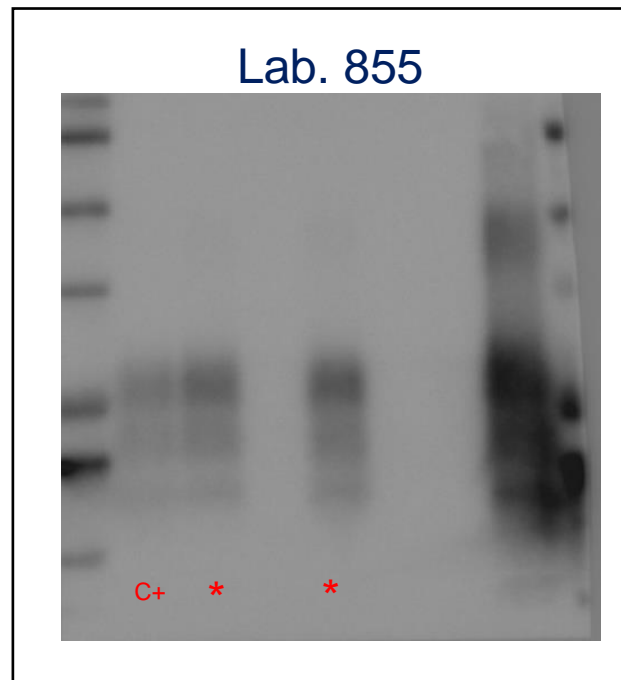
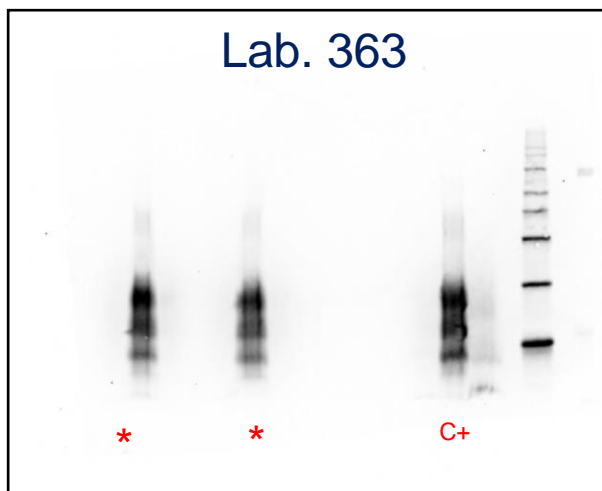


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Laboratories 363 and 855

2nd round



both laboratories correctly interpreted all samples from the second round



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The forthcoming 2022 round of EQAs
Confirmatory BSE and Scrapie
Immunoblotting



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About shipping

- The shipment of the samples is scheduled by mid November
- BSE and Scrapie confirmatory PTs will be sent along with sample sets for the rapid test
- The samples will be packed with dry-ice and the shipment will be scheduled at the beginning of the week
- E-mail to communicate the shipment

Please transmit the import permit as soon as possible, if required and expired



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Submission PTs results

- The submission of results is expected by 3 weeks after the shipment (by 10th December 2022)
- The results submitted after the deadline will not be evaluated
- The results will be submitted by EURL web site (information will be provided soon)
- Please include in the submission the raw data (pictures of the blots, readings) and all the information about the kit batches used for the analysis
- Report any information considered important for the correct interpretation of the results



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THANKS FOR YOUR ATTENTION



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