

**20<sup>th</sup> Annual Meeting of the TSE EURL**  
**Rome, 2<sup>nd</sup> – 3<sup>rd</sup> October 2023**

**2022 round of TSE EURL EQAs:**  
**Results feedback**



**Confirmatory BSE and  
Scrapie Immunoblotting**

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# NRLs participating in Proficiency Testing 2022

23 and 24 laboratories for Confirmatory BSE and Scrapie



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

*\* Only Confirmatory Scrapie*



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# PLANNING

Each NRL has been identified with a new code, different for the two PTs

Each round included 5 samples of frozen brainstem homogenates of cattle and sheep

Samples were stored at -80 °C until shipment by the courier on dry ice

Set of samples included information on their preparation, manipulation and transmission results




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# Shipping and Transmission results

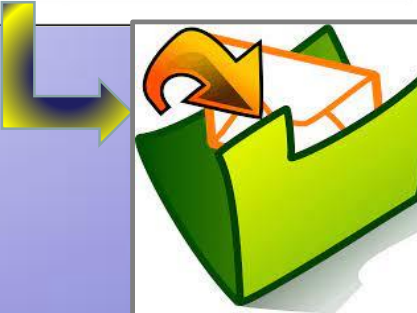
Samples were shipped  
on 21<sup>st</sup> and 22<sup>nd</sup>  
November 2022



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

Version num 2- Nov2020

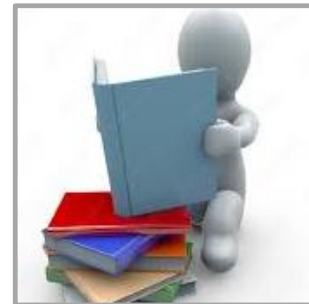


Deadline for  
submission of  
results was on 16<sup>th</sup>  
December 2022



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# Transmission of the results

- All NRLs submitted the results of both PTs by the deadline.
- 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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# EURL EQA round 2022: Quality Control

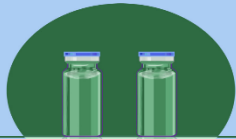


## Confirmatory BSE and Scrapie Immunoblotting

**ISO 17034**

Requirements for  
Producers of

**Reference Materials**



QUALITY



**Homogeneity**

**Stability**



**ISO/IEC 17043**  
Conformity assessment – General  
requirements for proficiency testing



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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
WB2201	negative	////
WB2202	positive	medium
WB2203	positive	strong
WB2204	negative	////
WB2205	negative	////

Sample WB2201 = sample WB2204 = sample WB2205



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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
WS2201	positive	strong	classical scrapie
WS2202	positive	medium	classical scrapie
WS2203	positive	medium	classical scrapie
WS2204	negative	////	///
WS2205	positive	strong	classical scrapie

Sample WS2201 = sample WS2205; sample WS2202 = sample WS2203



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# Processing of results

Elaboration of a report with the PTs results for  
BSE and Scrapie round



## 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: WB22

Primary Tests	No. NRLs
TeSeE Western Blot - Bio-Rad	19
In house method	2
OIE SAF immunoblot	1
PrioWestern BSE Kit - ThermoFisher Scientific	1



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# Results Tabulation for BSE Confirmatory Immunoblot Scheme: WB22



**TeSeE Western Blot Bio-Rad used four batches  
1H0048 – 2C0049 – 2H0050 – 2F0046**

**ThermoFisher**  
SCIENTIFIC

**PrioWestern BSE Kit – ThermoFisher Scientific used one batch  
W200201G**



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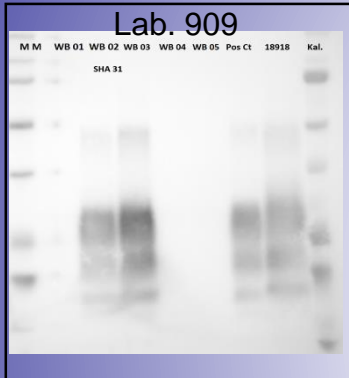
# BSE confirmatory Immunoblot – Scheme WB22



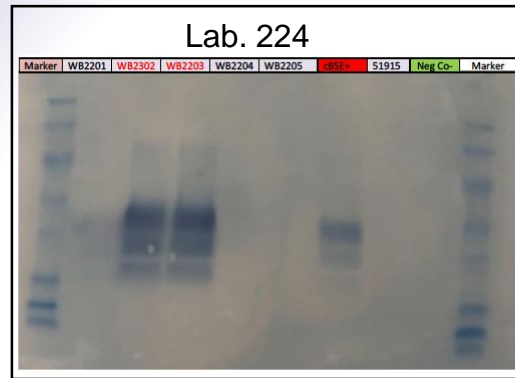
## All laboratories have passed this PT round

### Critical issues

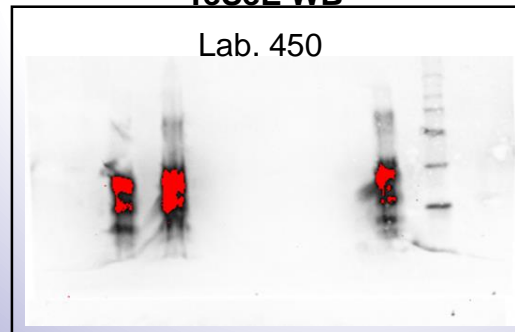
TeSeE WB



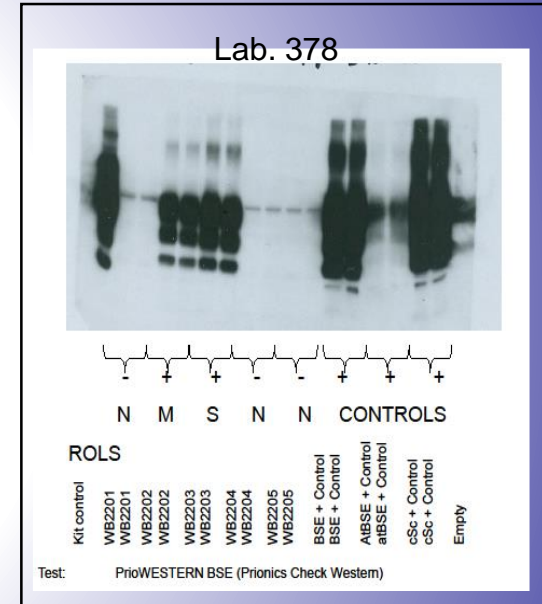
TeSeE WB



TeSeE WB



PrioWestern



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## Results Tabulation for Scrapie Confirmatory Immunoblot Scheme: WS22

Primary Tests	No. NRLs
TeSeE Western Blot Bio-Rad	16
In house method	3
APHA Bio-Rad Hybrid §	2
OIE SAF immunoblot	1
TeSeE Western Blot Bio-Rad *	1
PrioWestern BSE Kit - ThermoFisher Scientific**	1

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

\* TeSeE Western Blot: detection also with P4

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



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# Results Tabulation for Scrapie Confirmatory Immunoblot Scheme: WS22



**TeSeE Western Blot Bio-Rad used four batches  
1H0048 – 2C0049 – 2H0050 – 2F0046**

**ThermoFisher**  
SCIENTIFIC

**PrioWestern BSE Kit – ThermoFisher Scientific used one batch  
W200201G**



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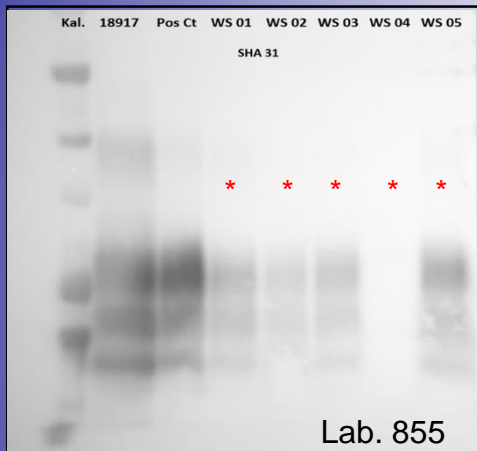
# Scrapie confirmatory Immunoblot – Scheme WS22



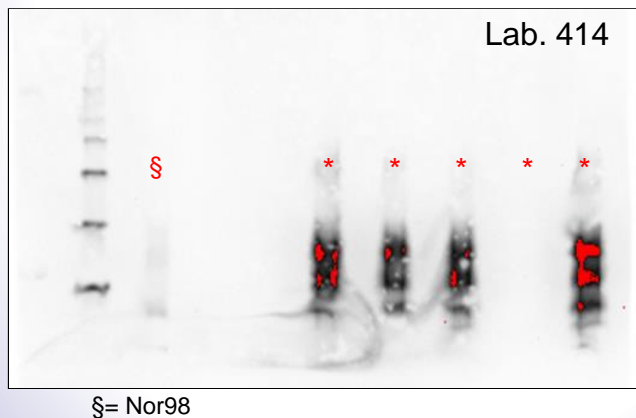
## All laboratories have passed this PT round

### Critical issues

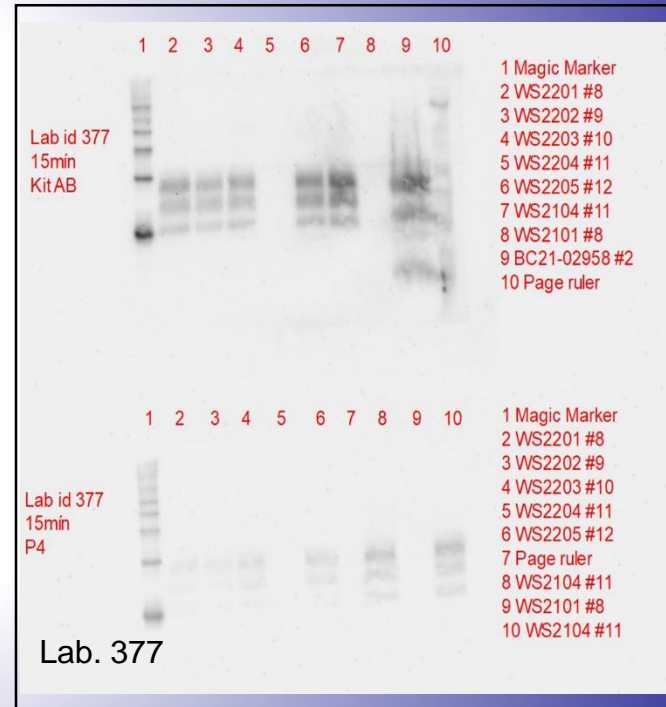
TeSeE WB



TeSeE WB



TeSeE WB



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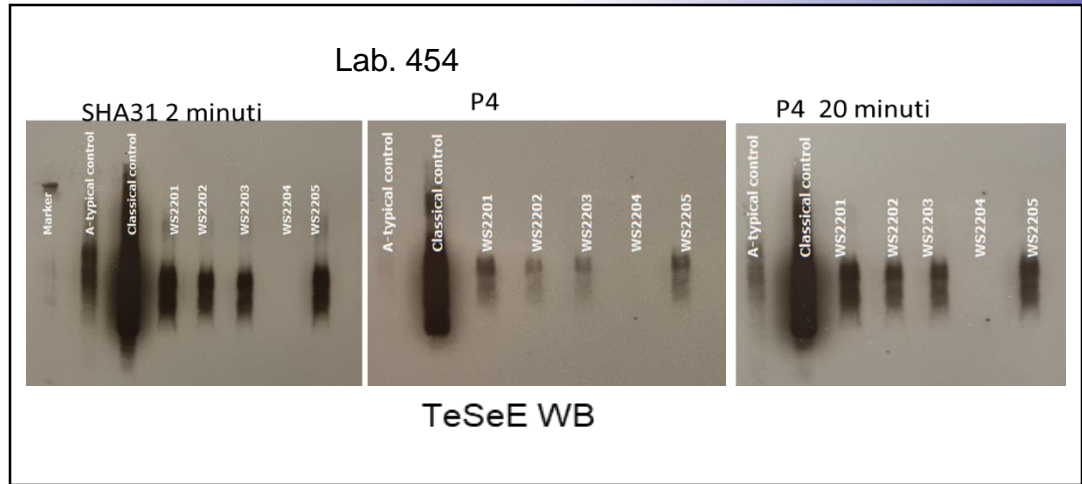
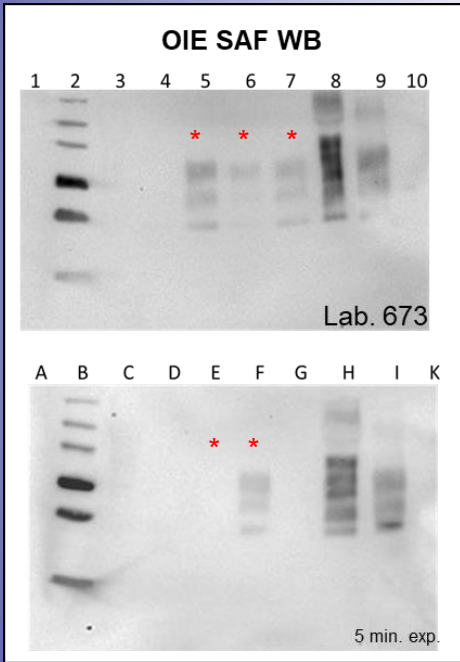


# Scrapie confirmatory Immunoblot – Scheme WS22



All laboratories have passed this PT round

## Critical issues



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## Confirmatory BSE and Scrapie Immunoblotting

# The forthcoming 2024 round of EQAs Confirmatory BSE and Scrapie Immunoblotting



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## About shipping

- The shipment of the samples is scheduled in June
- 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
- The results submitted after the deadline will not be evaluated
- The results will be submitted by EURL web site
- 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

**No extension of the  
deadline will be made**



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## PTs results

**The results of the PTs round 2023 and 2024  
will be reported at the next TSE EURL Meeting**



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# EURL Contact Immunolotting



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# THANKS FOR YOUR ATTENTION



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