

20th Annual Meeting of the TSE EURL

EURL PrP Immunohistochemistry NRL Performance Technical EQA 2022

Barbara Iulini

Roma, Italy – 2nd-3rd October 2023



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Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta – Turin
Istituto Superiore di Sanità - Rome

Proficiency Testing

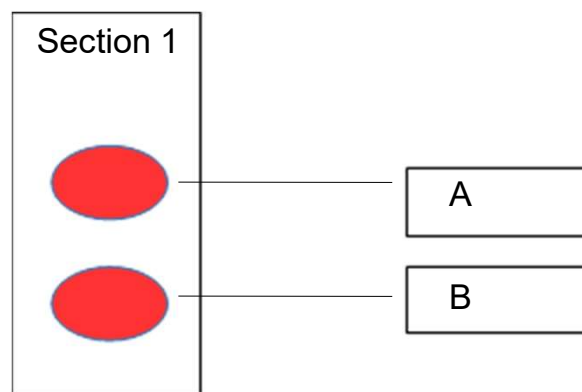
21
Laboratories



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PrP IHC EQA 2022

- **Two set** of eight unstained sections on four labelled slides, which include both BSE and scrapie infected animals. Ovine slides include lymph node material.



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PrP IHC EQA 2022

Antibody preference for BSE cases

F99	12F10	R145	L42	6C2	F89	SAF84
11	3	3	1	1	1	1



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PrP IHC EQA 2022

Antibody preference for Scrapie cases

F99	2G11	F89	R145	6C2	L42
9	5	3	2	1	1



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PrP IHC Results – Detection Systems

Vector ABC Kits	Vector ImmPRESS	Dako EnVision Detection kit	Dako REAL Detection System	Dako streptavidin HRP kit	Thermo Scientific Ultra sensitive ABC Peroxidase Kit
12	2	3	2	1	1



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PrP IHC EQA 2022 - Comments

Low sensitivity ↓ increase antigen retrieval step	Presence of aspecific signal ↓ reduce incubation with chromogen	Presence of excessive counterstaining ↓ reduce incubation with hematoxylin
1	6	2



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PrP IHC EQA 2022 - Comments

Incorrect interpretation	Doubts about the classification of atypical scrapie obex – globular pattern	Fail	No comments
1 Pos-C and 1 Inc instead of Pos-A	4	1	7



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PrP IHC EQA 2022 - Conclusions

- 20 Member states passed all categories compared with the EURL
(13 received advice to improve their results)
- 1 laboratory failed the PT



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PrP IHC EQA 2023

Timescale

- EURL sent samples last week
- 3 weeks to perform the PT and to send back the PrP immunostained sections.



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EURL Histopathology interpretation 2022

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Materials and Methods

- 15 slides (12 IHC, 3 H&E)
- Scanned
- Access to scanned images via the web
- Results entered in the spreadsheet previously sent by the EURL and uploaded to googleform within the deadline



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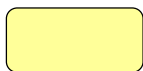
Interpretation rules



Correct and safe results



Incorrect results



Inconclusive or unsuitable



A scrapie case is correctly diagnosed as positive, but subsequently misclassified or not classified, “Pos-A” or “Pos-C”



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