

IHC1/25: Immunohistochemistry - Detection of HER-2/neu

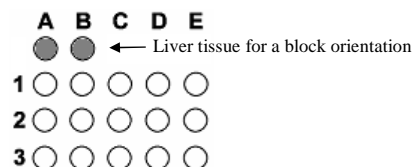
This EQA round was accomplished according to the document *EQA Plan 2025*.

Typing conventions: We are using comma as a decimal separator and dates in day.month.year format.

Samples

Each participant received one histological glass (TMA). All slides contained identically arranged samples from identical source tissue blocks. The TMA block map is displayed on the right.

The samples were prepared by the subcontractor.

**Assigned values (AV)**

The results of **HER-2/neu expression** reported by the participants for individual TMA positions are evaluated in this programme.

AVs are determined as the consensus of the expert laboratories. The list of the expert laboratories for the IHC programme is available at the www.sekk.cz (EQA button and the link *Experts (laboratories)*). In fact this is a group of so called Reference laboratories for Her-2 diagnostics (the list is published by VZP here: <https://www.vzp.cz/poskytovatele/informace-pro-praxi/seznamy-center-a-szz/referencni-laboratore-pro-provadeni-vykonu-prediktivni-diagnostiky>).

The consensus of expert laboratories that participated in the round is reached if at least 80 % of those experts, who reported the result, agree on the particular result. The agreement of the experts is examined over the following groups of results:

- negative (0) and negative (1+)
- positive (2+) and positive (3+)

These rules are applied:

- If the experts agree on one particular result then this result is marked as the expected result and complementary result from appropriate pair (0/1+ and 2+/3+) is marked as the acceptable value.
- If the results of the experts are spread inside the pair the way in which 80 % of the experts conclude on whole pair but not on one value from the pair, then both values are marked as expected results.
- If there is not consensus of the experts then the particular TMA position is not assessed (AV is missing).
- The consensus cannot be reached "across" the pair 0/1+ and other results. For example the consensus on the results 1+ and 2+ together is not possible.

This procedure of the AV determination eliminates cases in which the samples could be labelled as "inconclusive" or "questionable".

Overview of the AVs in this round

| # | TMA position | Number of the results from the expert laboratories | | | | Consensus |
|-----|--------------|--|---------------|--------------------|----------------------|-------------|
| | | Negative (0) | Negative (1+) | Weak positive (2+) | Strong positive (3+) | |
| 601 | A1 | 10 | 3 | | | negative |
| 602 | A2 | 2 | 10 | 1 | | negative |
| 603 | A3 | | | | 13 | positive |
| 606 | B1 | 6 | 4 | | | negative |
| 607 | B2 | | | 12 | 1 | positive |
| 608 | B3 | 1 | 8 | 4 | | not reached |
| 611 | C1 | 2 | 10 | | | negative |
| 612 | C2 | | 10 | 3 | | not reached |
| 613 | C3 | 1 | 4 | 8 | | not reached |
| 616 | D1 | | | 10 | 3 | positive |
| 617 | D2 | | | 12 | 1 | positive |
| 618 | D3 | | | | 13 | positive |
| 621 | E1 | 3 | 8 | 1 | | negative |
| 622 | E2 | 3 | 10 | | | negative |
| 623 | E3 | 8 | | | | negative |

Supervisor's comment

There were 37 participants in this round, 2 from Romania and 15 from Slovakia.

As follows from the description of AVs above, **12 samples** (positions in the TMA block) were assessed in this round. Positions B3, C2, C3 were not assessed because the consensus was not reached among the expert laboratories. Other participants reported for these samples the results with a distribution similar to the experts.

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Problematic samples (meaning: erroneous results are not sporadic to them) are usually found among those where expert laboratories have agreed on the AVs of 1+ or 2+. However, it cannot be said that all of these samples are problematic. We did not observe such problematic results in this round.

Long term success rate

You can find the overview of the total success of the participants of this round over last 2 years in the following table. Particular ranges of success are defined in the column headers (percentage of the tests on which the participant reported the correct result). Next 2 lines contain both absolute and relative number of participants who reached the success from the header.

| Success | | 0 % | 1 - 74 % | 75 - 79 % | 80 - 89 % | 90 - 94 % | 95 - 99 % | 100 % |
|------------------|----------|----------------|-----------------|------------------|------------------|------------------|------------------|--------------|
| Success in words | | unsatisfactory | | acceptable | good | very good | excellent | |
| Count | absolute | 0 | 0 | 0 | 2 | 7 | 15 | 13 |
| | relative | - | - | - | 5,4 % | 19 % | 41 % | 35 % |

Note: You can find your individual success over last 2 years in your result sheet.

Overall success of most participants of this round over the last 2 years is 90 % or higher. Success rates below 90 % should be considered to be an impulse to improve.

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Supplements

As a supplement to this report individual participant who reported the results gain:

| Name | Description |
|--|---|
| Confirmation of attendance Result sheet | The conditions for issuing the relevant document specified in the EQA Plan must be met. |

The supplements are identified by their name, EQA round identification and participant code and are intended for the needs of the participant.

If you reported the results in this round, you can find your individual evaluation (reports) in the **Cibule** application (<https://www.eqa.cz/cibule>). After login, select **EQA Results - View** in the menu and then click the **Reports** button for the particular round.

Additional information

The final report, with the exception of the supplements, is public. Further information is freely available to the participants and other professionals at www.sekk.cz, in particular:

- The summary of the results of this round, including this final report.
- The document **EQA Plan** (contains information that applies both to this round and also the EQA in general).
- Explanation of the content of the particular supplements mentioned above.
- Contact to the EQA provider and the EQA coordinator and the list of all supervisors, including contacts.