

External Quality Assessment Scheme

Blood grouping, gel cards Round 1, 2022

Specimens

Cases 1-4 and images 1-30.

Parameters

Cases 1-4: Reaction strengths and/or ABO and Rh interpretations

Images 1-30: Reaction strengths

Result reporting

It is possible to give three (3) different answers (different persons, add the ID of the person in the 'Respondent' field). Please enter the results via LabScala. The round will be open 17.11.2022.

2022-11-17

INSTRUCTIONS

Product no. 4480

Subcontracting: Sample preparation

The results should be reported no later than
December 15, 2022.

Inquiries

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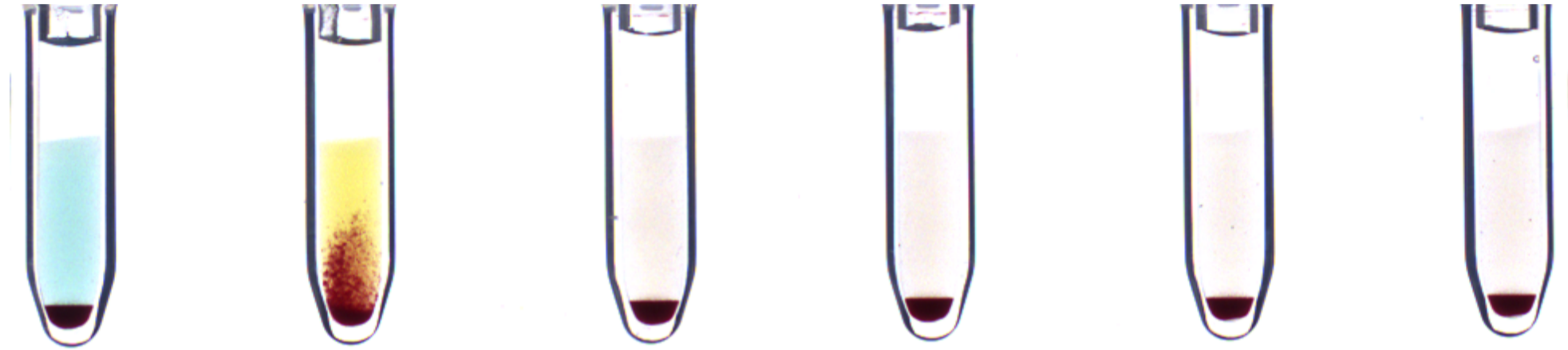
Round	No of participants	No of responded participants	Response percentage %
Column agglutination methods: grading of reactions and patient cases, October, 1-2022	57	56	98.25%

Case 1 | 1

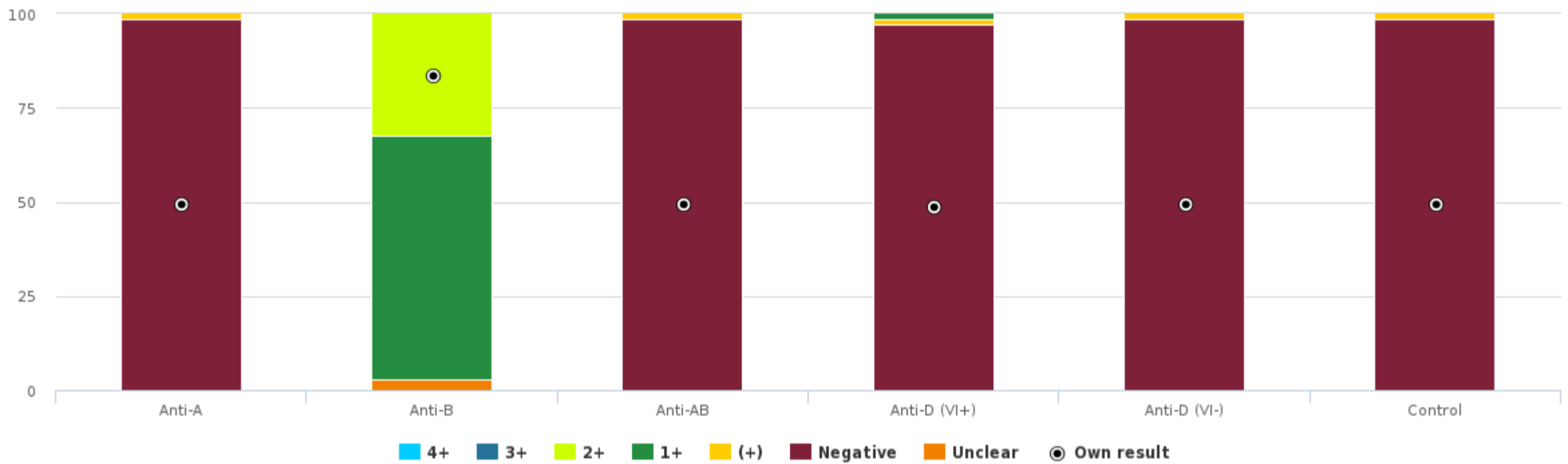
Blood grouping

Reagents from left to right: anti-A/anti-B/anti-AB/anti-D (VI+)/anti-D (VI-)/control

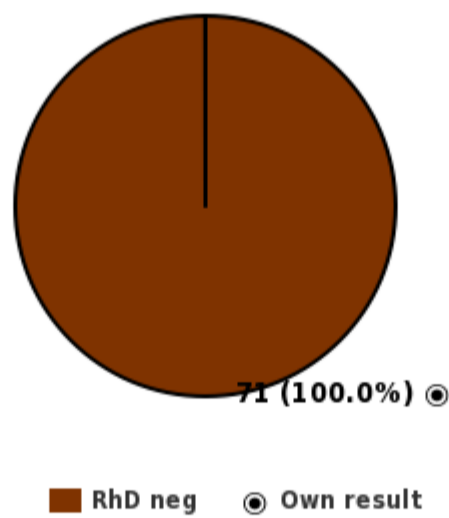
By pressing the image it will open to new window.



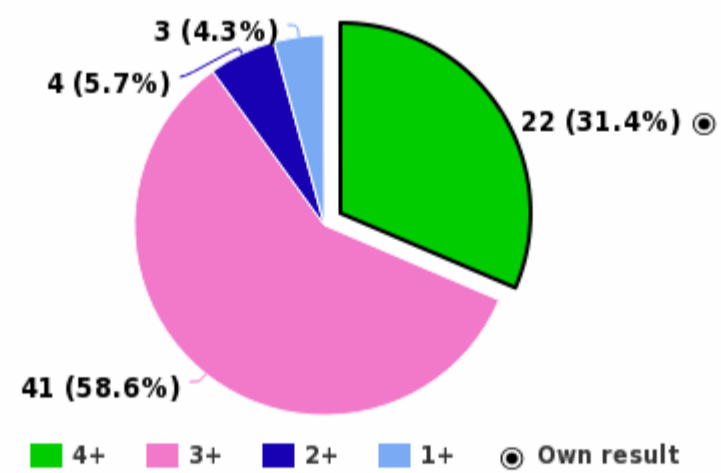
Case 1



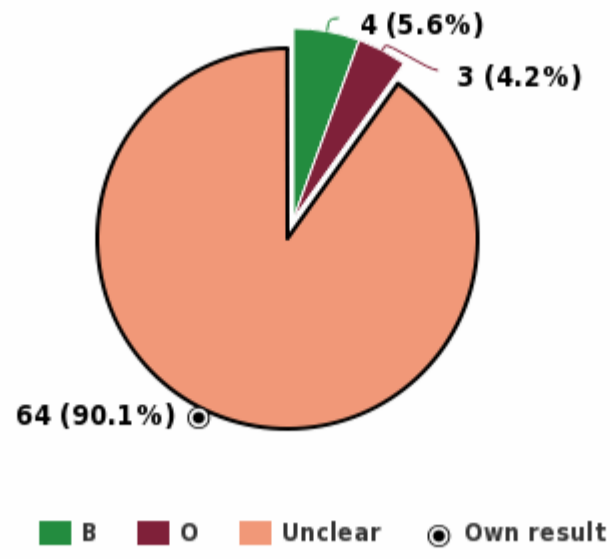
Patient's RhD blood group



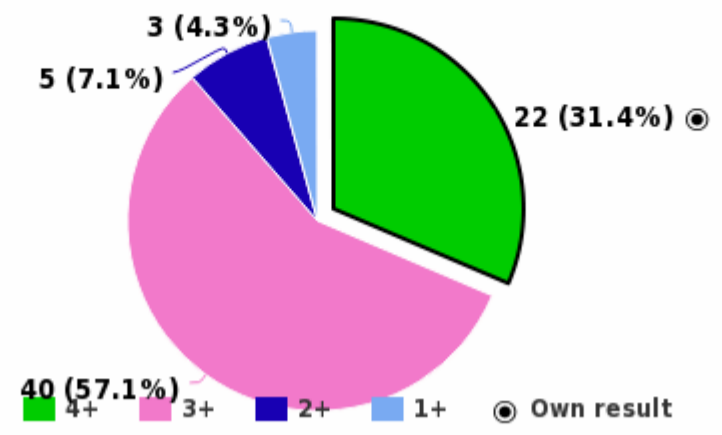
According to your reagent provider how strong a reaction should you get with anti-D so that RhD positivity can be assigned without any further testing



Patient's ABO blood group is



According to your reagent provider how strong a reaction should you get with anti-A and anti-B so that the blood group can be assigned as A/B/AB without any further testing

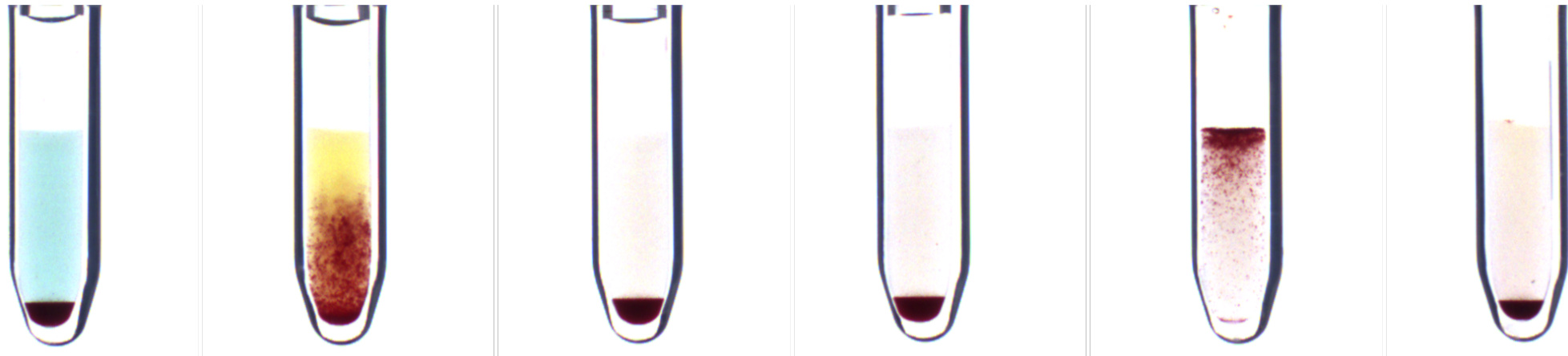


Case 2 | 1

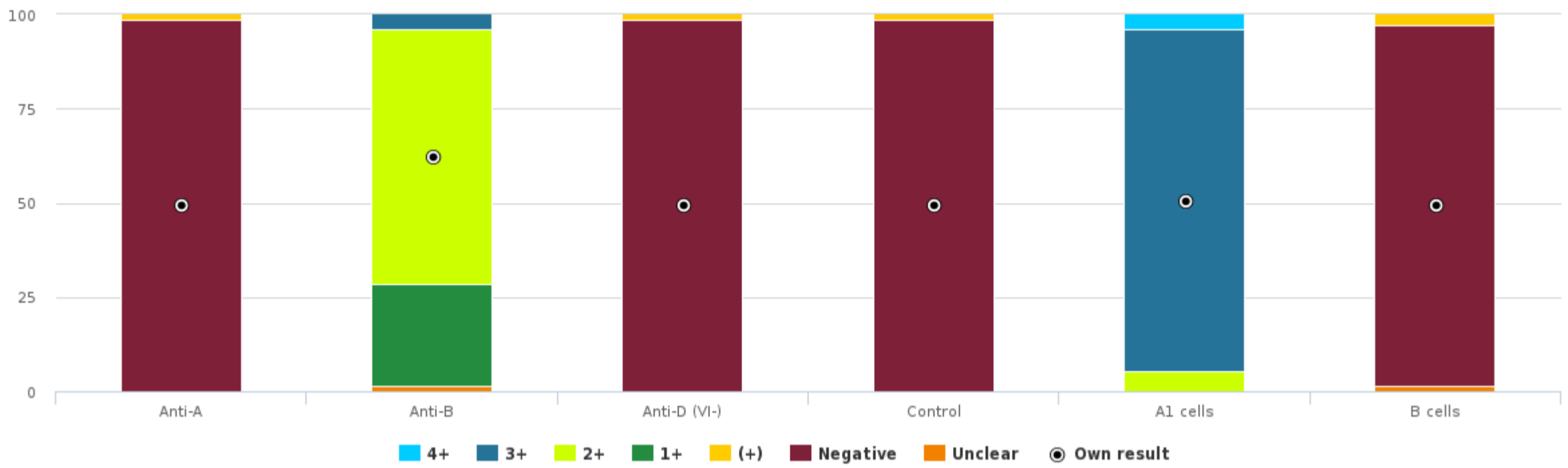
Blood grouping

Reagents from left to right: anti-A/anti-B/anti-D(VI-)/ control/A1 cells/B cells.

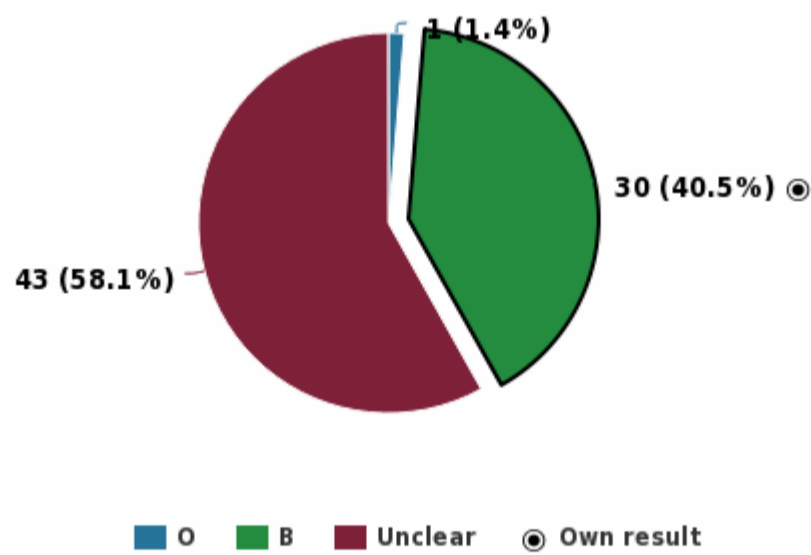
By pressing the image, it will open to new window.



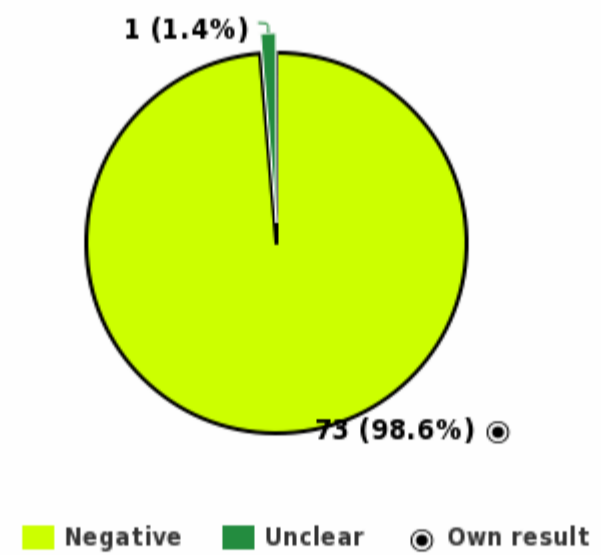
Case 2



ABO interpretation



Rh interpretation

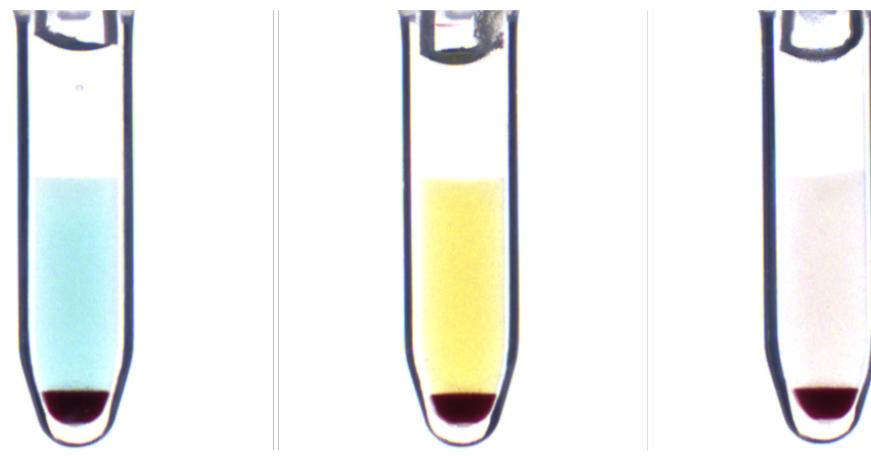


Case 3 | 1

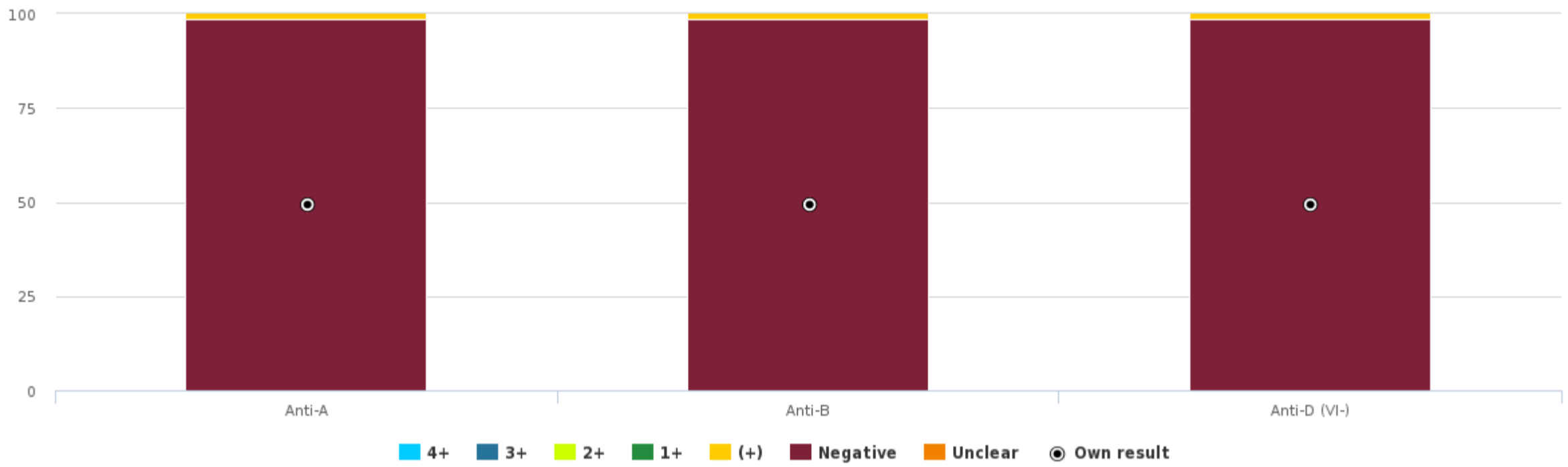
Blood grouping

Reagents from left to right: Anti-A/anti-B/anti-D(VI-)

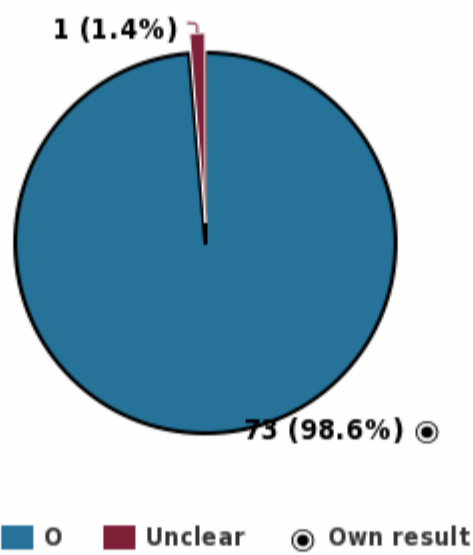
By pressing the image, it will open to new window.



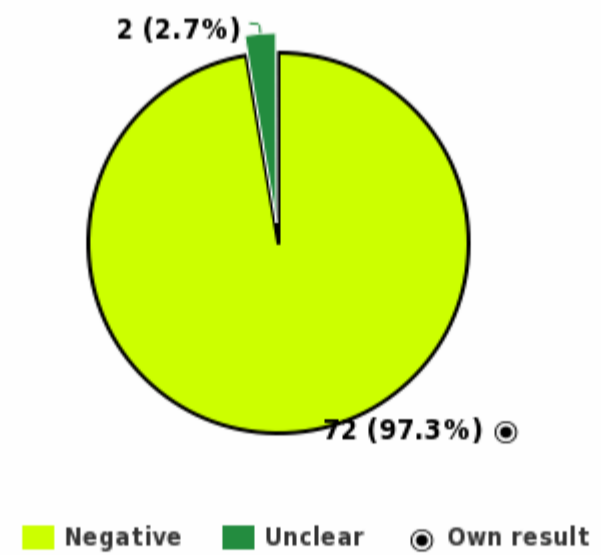
Case 3



ABO interpretation

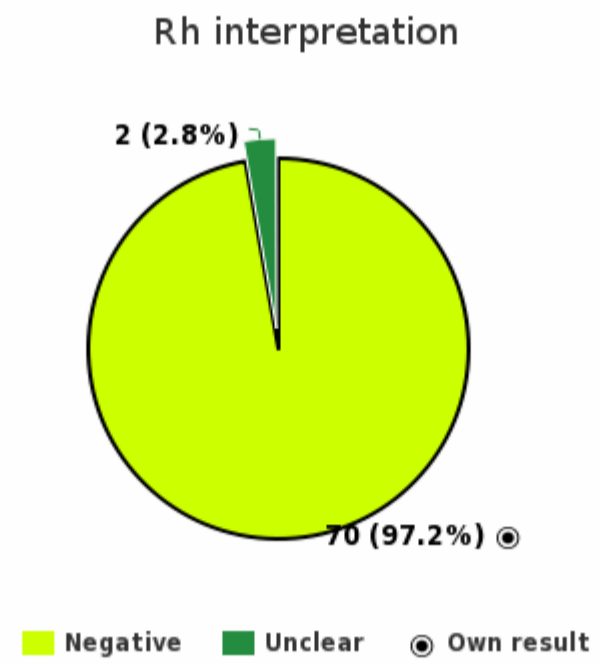
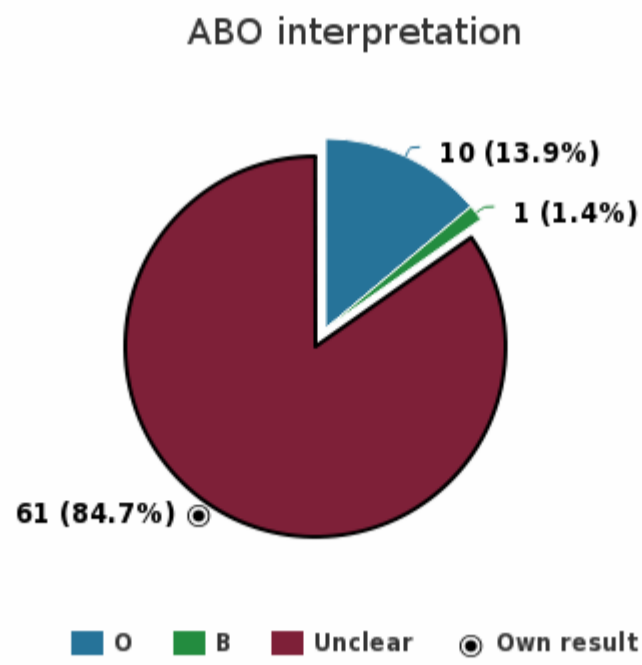


Rh interpretation



Case 4 | 1

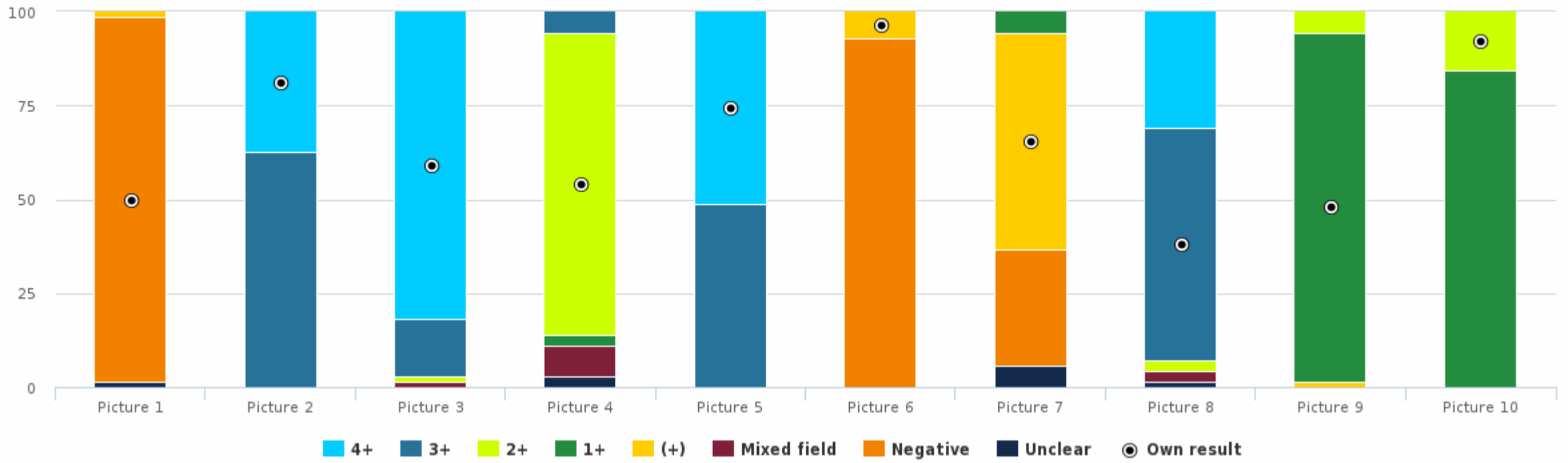
What would be your interpretation of ABO and RhD groups if all the previous cases represent the results from the same sample?



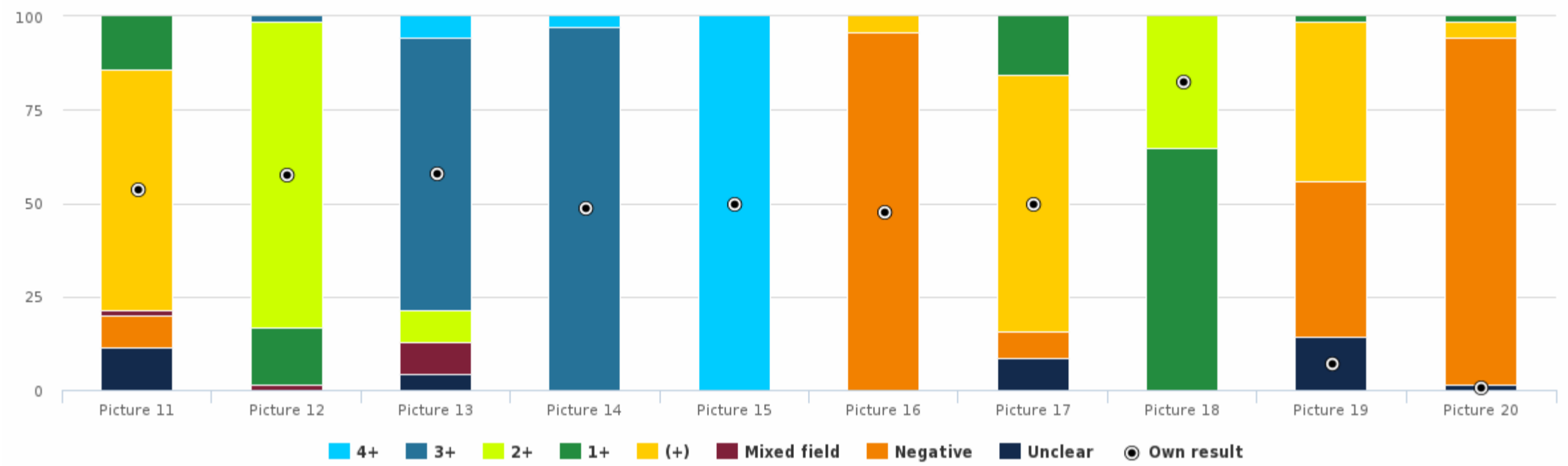
Images 1-30 | 1

Please select correct reaction strenght, **no mixed field reactions this time.**

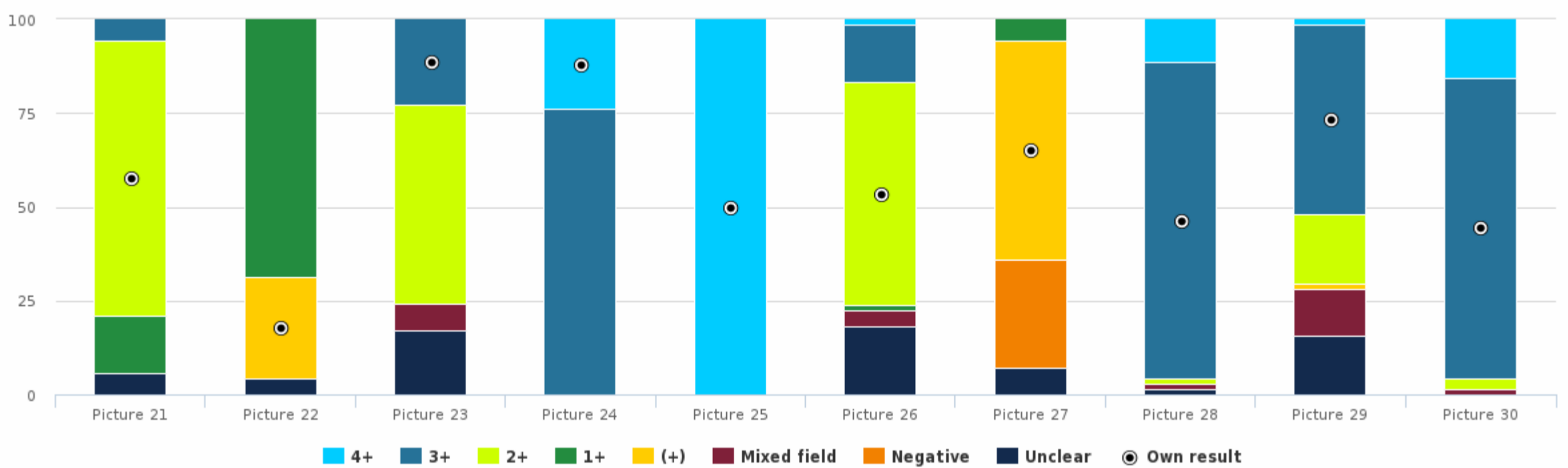
Pictures 1 - 10



Pictures 11 - 20



Pictures 21 - 30



LABQUALITY Column agglutination methods: grading of reactions and patient cases, October, 1-2022

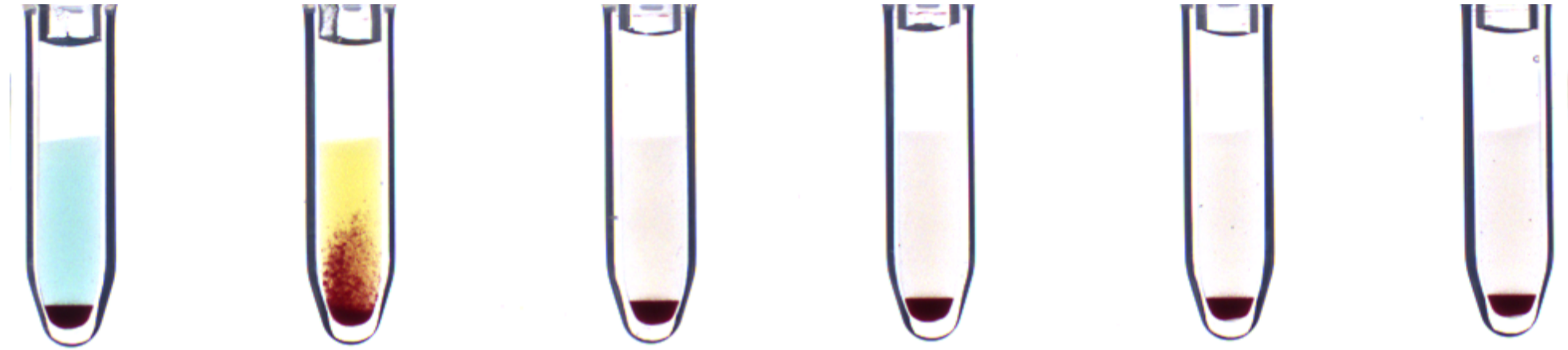
Round	No of participants	No of responded participants	Response percentage %
Column agglutination methods: grading of reactions and patient cases, October, 1-2022	57	56	98.25%

Case 1

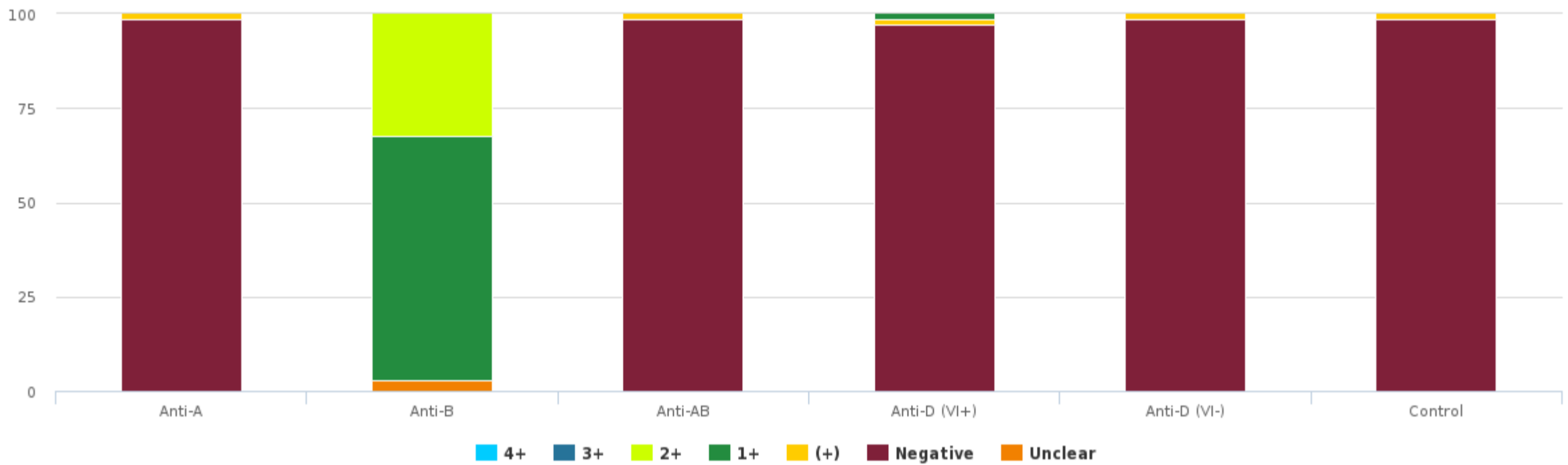
Blood grouping

Reagents from left to right: anti-A/anti-B/anti-AB/anti-D (VI+)/anti-D (VI-)/control

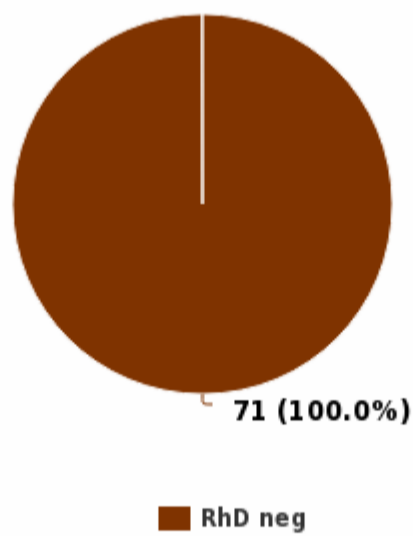
By pressing the image it will open to new window.



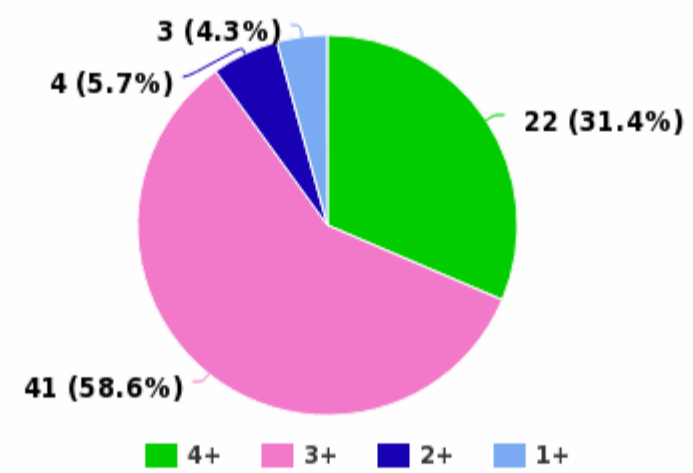
Case 1



Patient's RhD blood group

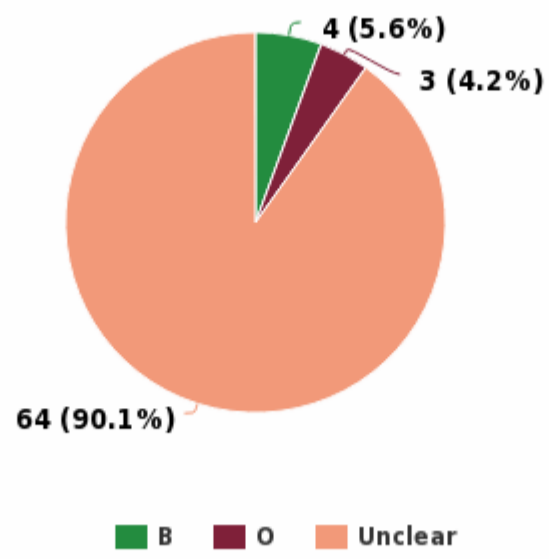


According to your reagent provider how strong a reaction should you get with anti-D so that RhD positivity can be assigned without any further testing

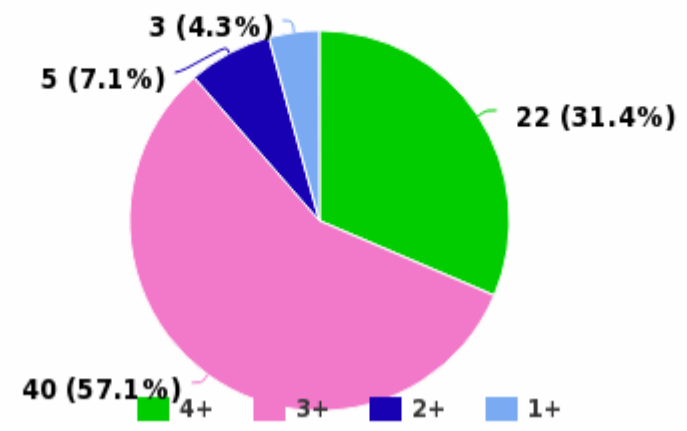


LABQUALITY Column agglutination methods: grading of reactions and patient cases, October, 1-2022

Patient's ABO blood group is



According to your reagent provider how strong a reaction should you get with anti-A and anti-B so that the blood group can be assigned as A/B/AB without any further testing

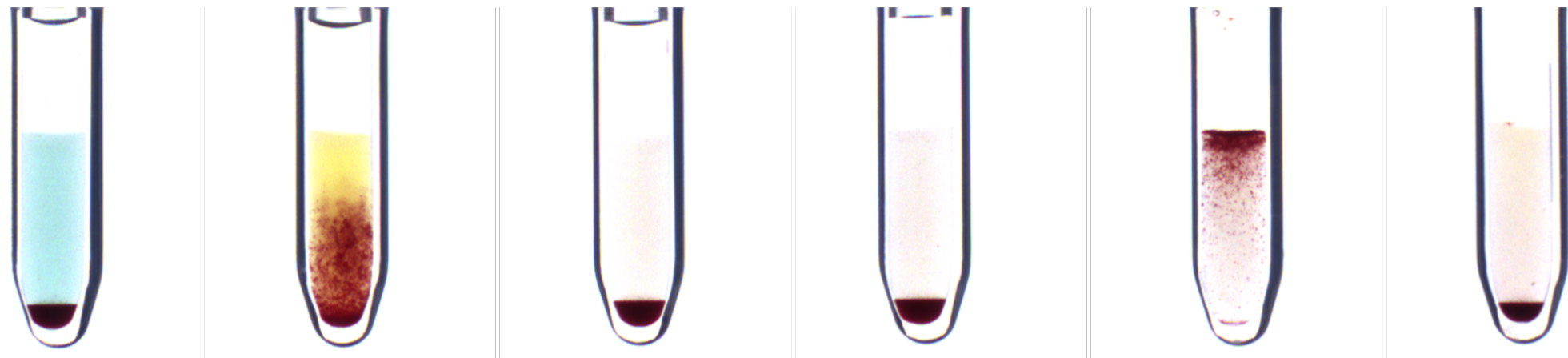


Case 2

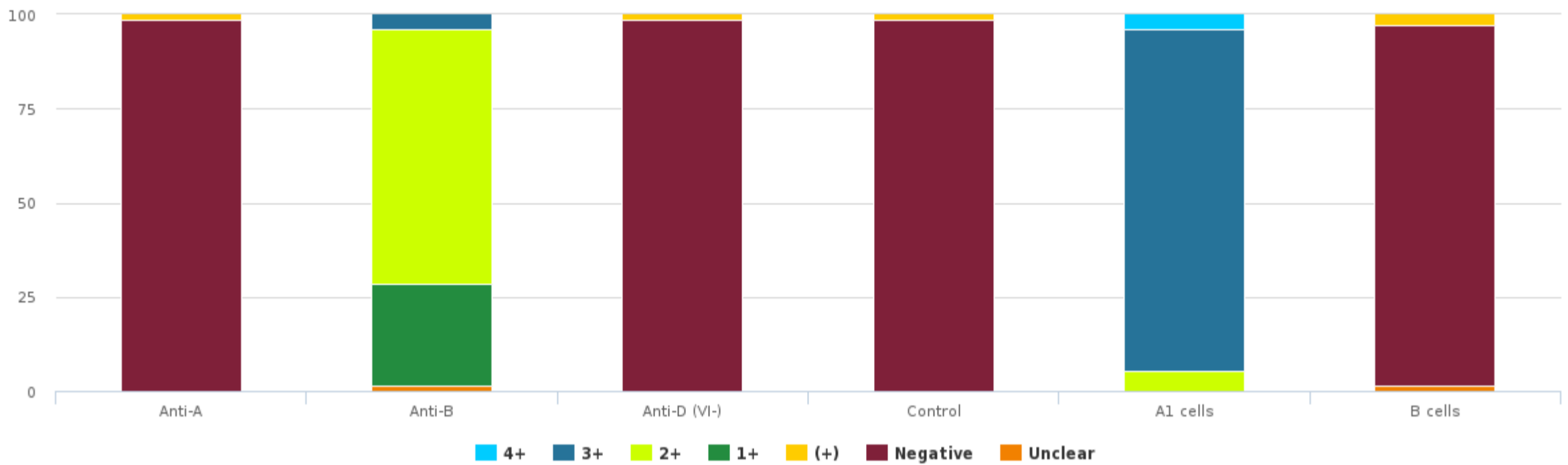
Blood grouping

Reagents from left to right: anti-A/anti-B/anti-D(VI-)/ control/A1 cells/B cells.

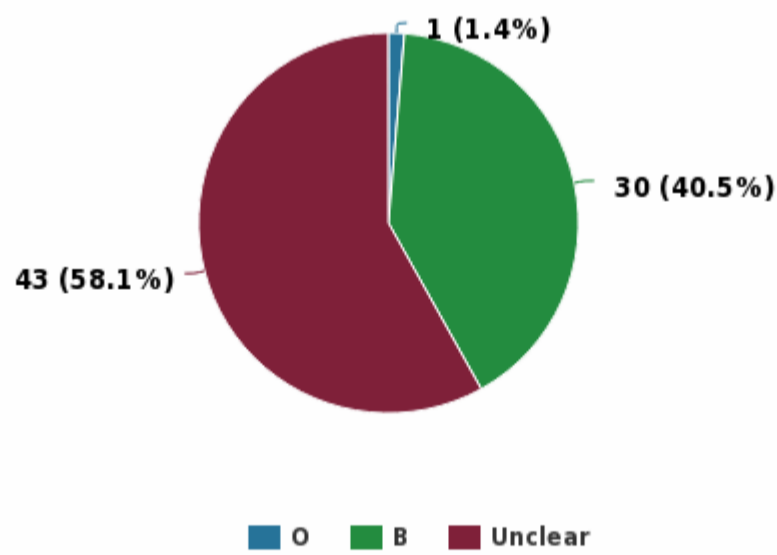
By pressing the image, it will open to new window.



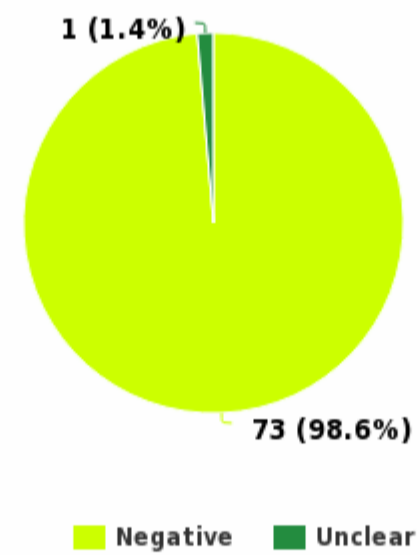
Case 2



ABO interpretation



Rh interpretation

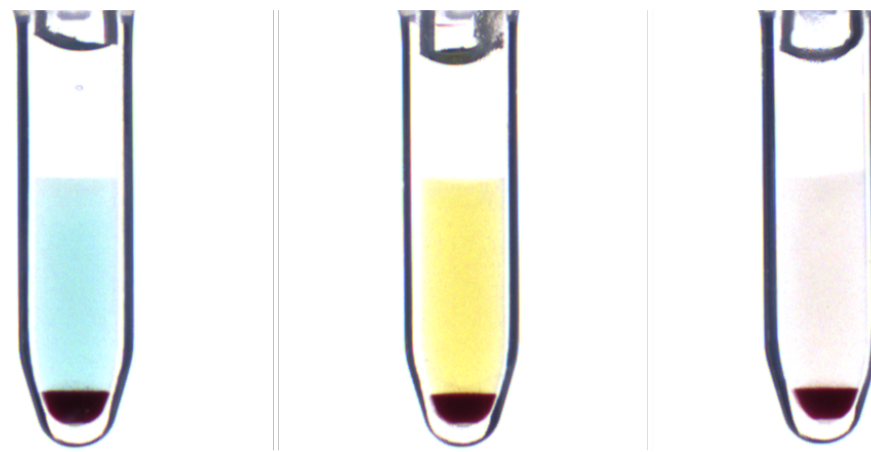


Case 3

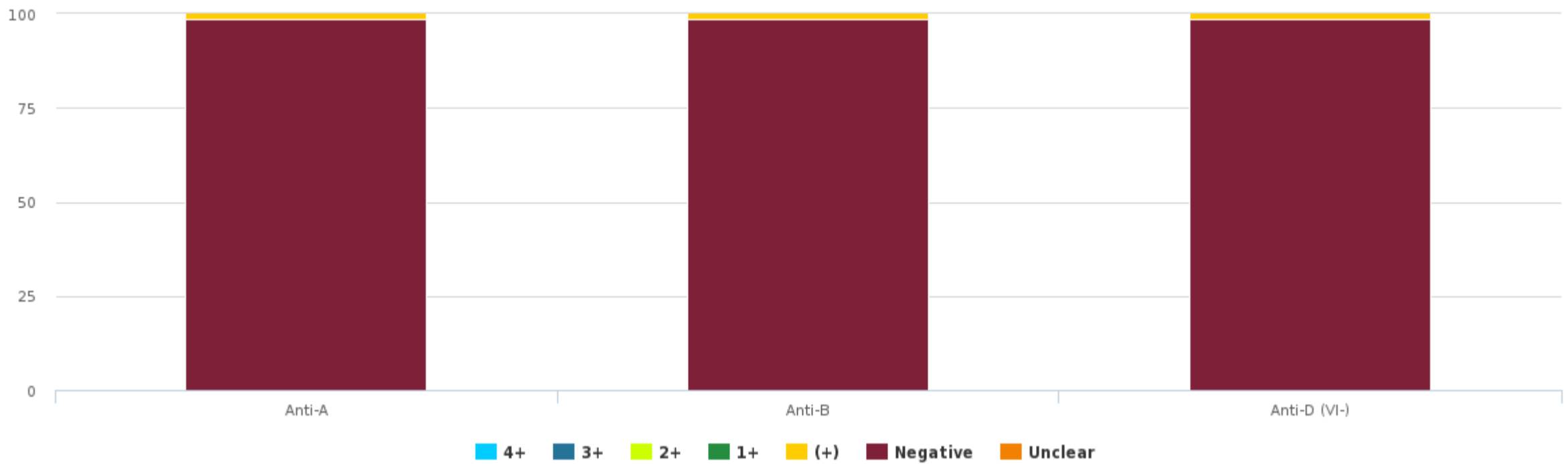
Blood grouping

Reagents from left to right: Anti-A/anti-B/anti-D(VI-)

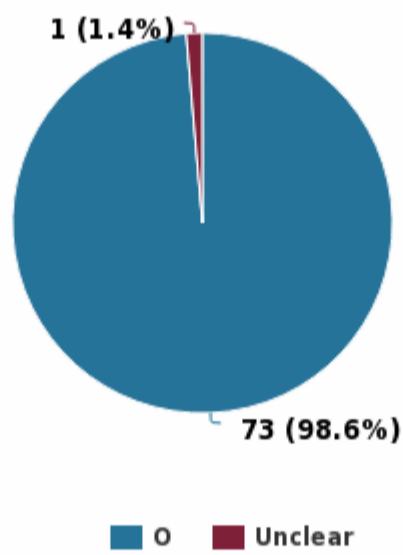
By pressing the image, it will open to new window.



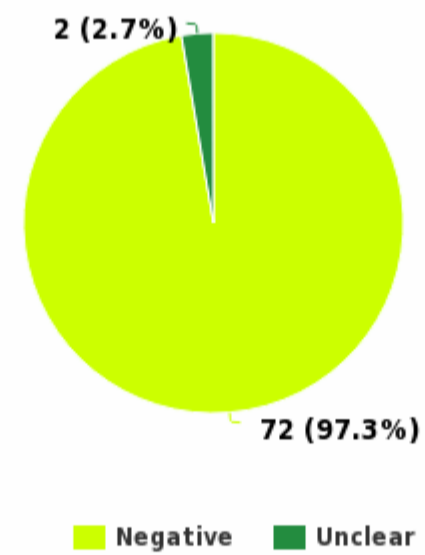
Case 3



ABO interpretation

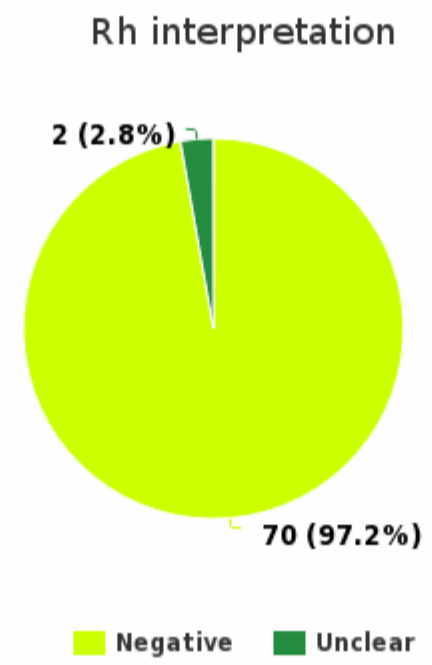
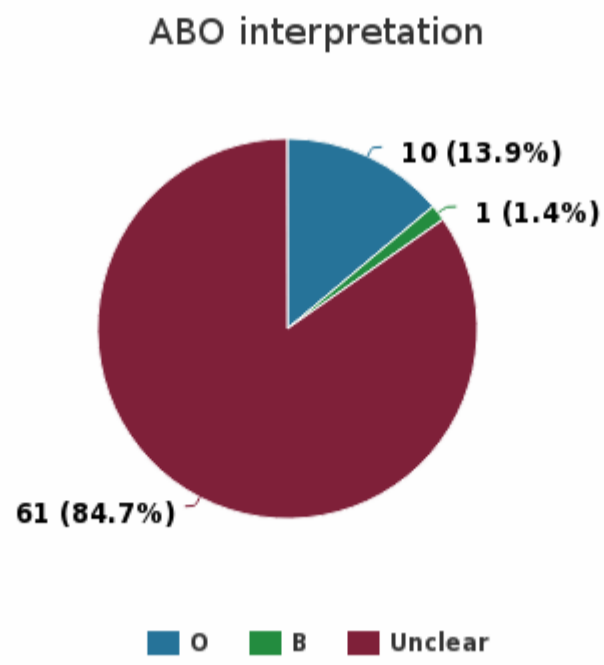


Rh interpretation



Case 4

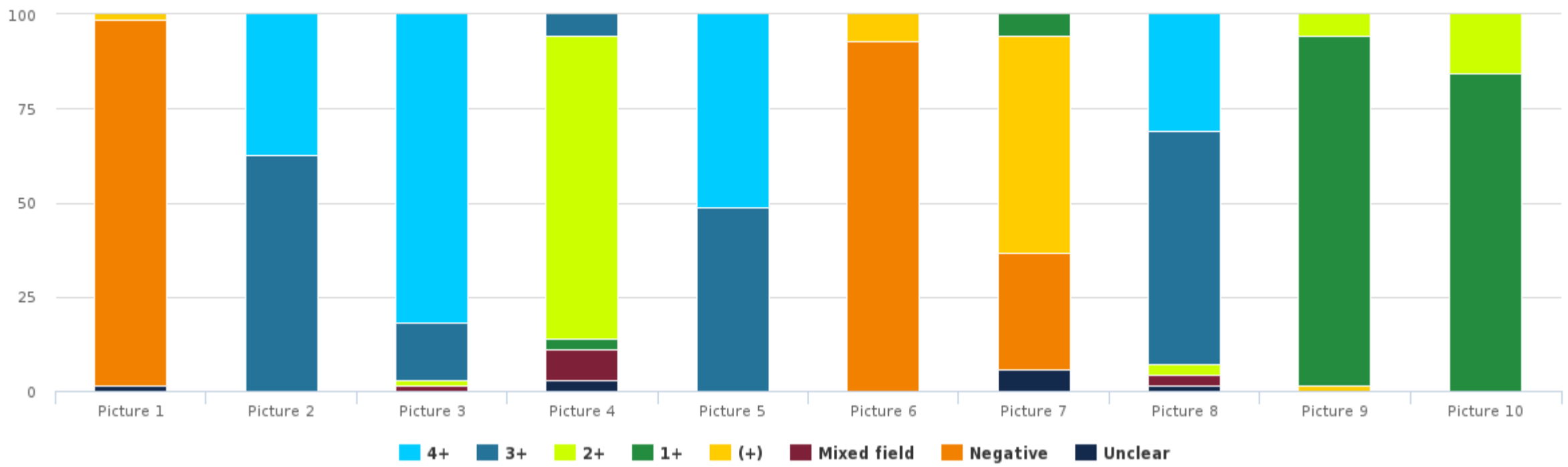
What would be your interpretation of ABO and RhD groups if all the previous cases represent the results from the same sample?



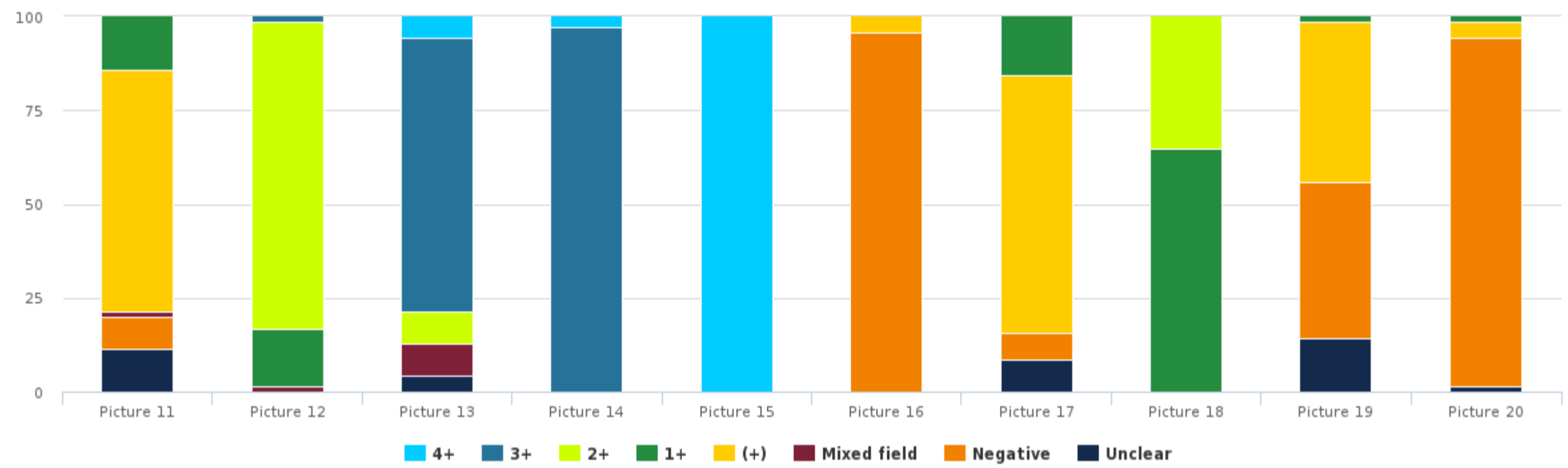
Images 1-30

Please select correct reaction strenght, **no mixed field reactions this time.**

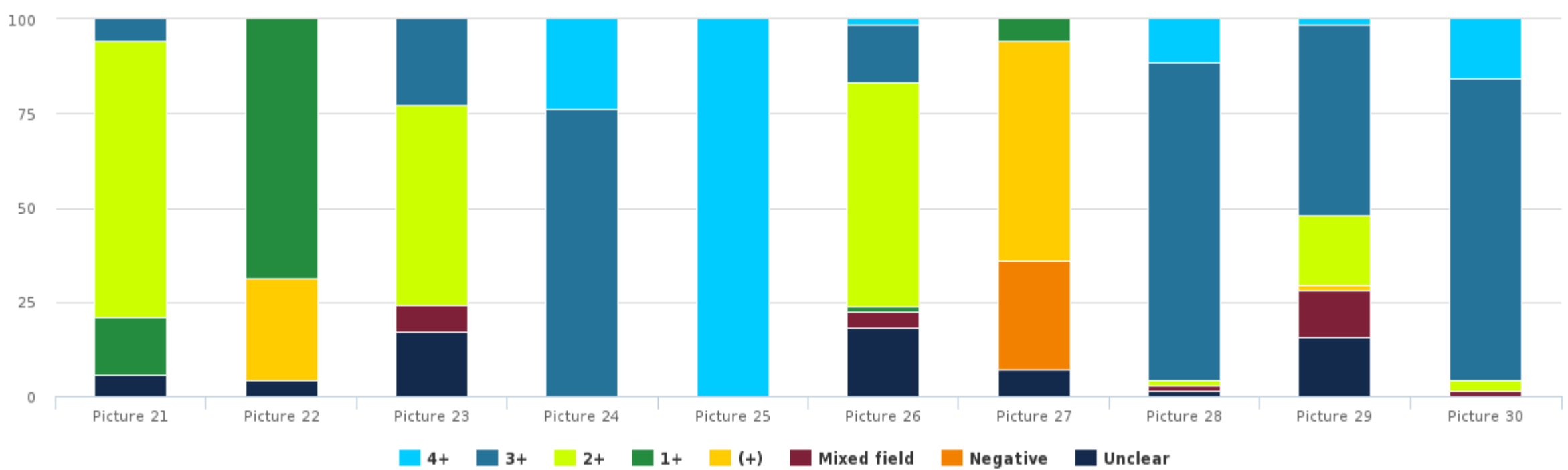
Pictures 1 - 10



Pictures 11 - 20



Pictures 21 - 30



External Quality Assessment Scheme

Blood grouping, gel cards, virtual scheme Round 1, 2022

Specimens

There were 4 patient cases and 30 gel card images in this scheme. ABO- and Rh interpretations and the reaction strengths were answered from the patient cases 1-4 and reaction strengths were answered from the 30 images.

Report info

It is important to read the Final report first, because it contains important information.

Comments- Expert

All the blood groupings (case 1-3) were made with the same sample with different reagents. Case 1 represents grouping with reagents for a newborn blood grouping. Most participants have stated the group as unclear because of a negative reaction with anti-AB and weaker than normal reaction with anti-B.

Case 2 represents full grouping and case 3 confirmatory group. The B antigen is weaker than normal, but the interpretation depends on the criteria set by the manufacturer. 88.5% of the participants said that the reaction strength of anti-B should be 4+ or 3+ in order to assign the group as B. A large majority (94.6%) of the participants assign the reaction strength weaker than 3+. Surprisingly, 40.5% of the participants stated the group as a clear B. The participants are encouraged to check if the laboratory procedures are consistent.

Case 3. Some manufacturers provide reagents for confirmatory grouping which give a weaker reaction than what is found in the full grouping.

Case 4. All the samples were analyzed simultaneously with the same sample. It was expected that in this case the group would be unclear because of somewhat inconsistent results with the reagents.

For the second part of this exercise the reaction images are placed in increasing order according to the average of reaction strengths. There were three samples where over 15 % of the participants stated that the group was unclear and there was also a wider than normal range of results.

Annex

Annex 1. The averages of reaction strengths.

End of report

2023-01-03

FINAL REPORT

Product no. 4480

Samples sent	2022-11-17
Round closed	2022-12-15
Final report	2023-01-03

Request for correction

Typing errors in laboratory's result forms are on laboratory's responsibility. Labquality accepts responsibility only for result processing. Requests must be notified by writing within three weeks from the date of this letter.

Authorized by

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Expert

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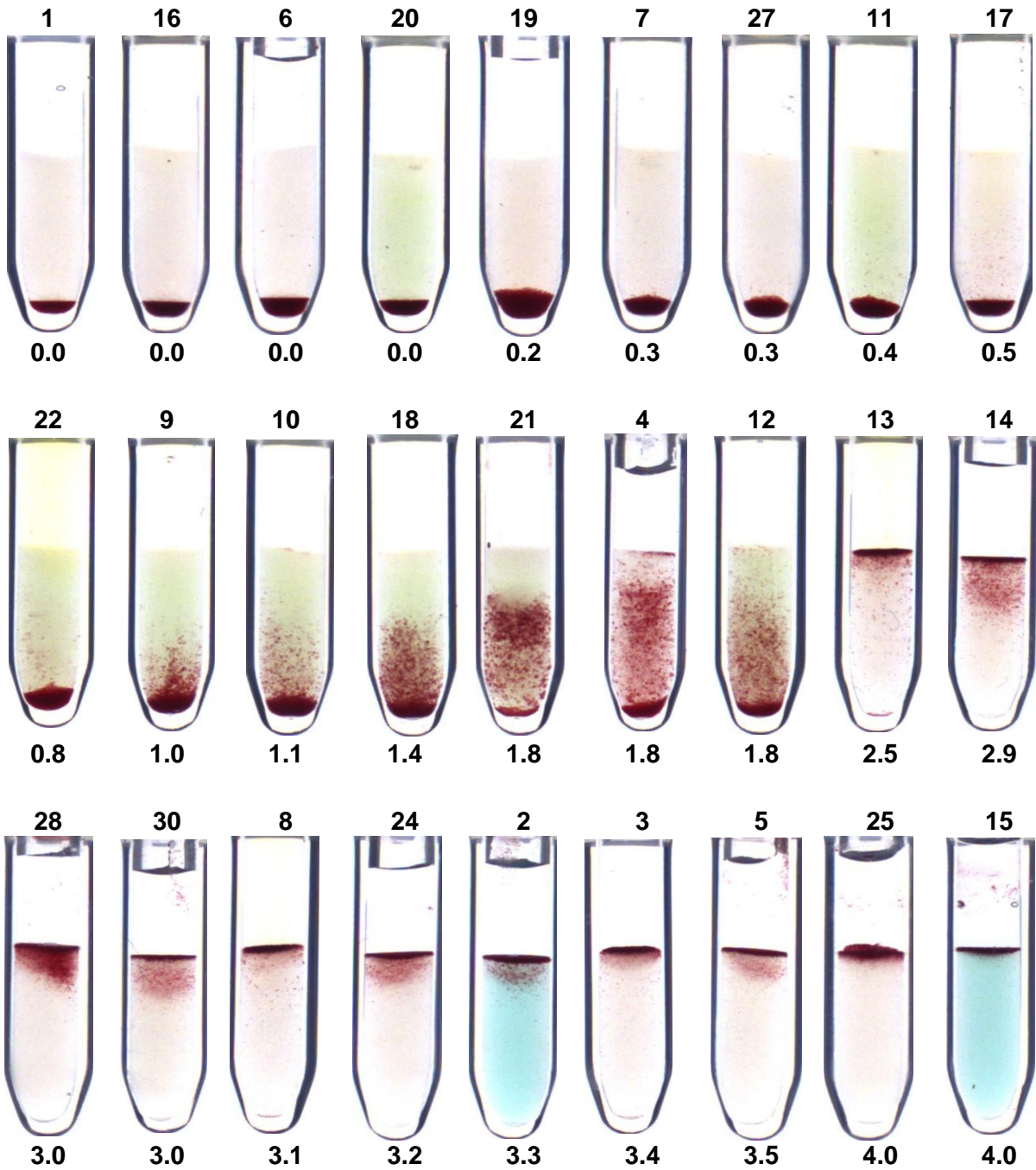
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Annex 1. THE AVERAGE OF THE REACTION STRENGTHS



UNCLEAR REACTIONS (over 15 % of all the participants stated that the reaction is unclear)

Figure 23

3+	16 (22,86%)
2+	37(52,86%)
MF	5 (7,14%)
Unclear	12 (17,14%)



Figure 26

4+	1 (1,41%)
3+	11 (15,49%)
2+	42 (59,15%)
1+	1 (1,41%)
MF	3 (4,23%)
Unclear	13 (18,31%)



Figure 29

4+	1 (1,41%)
3+	36 (50,70%)
2+	13 (18,31%)
(+)	1 (1,41%)
MF	9 (12,68%)
Unclear	11 (15,49%)

