

Overall Report

Round 14 of
Blood coagulation + coagulation factors
External Quality Assessment

Vienna, 20.05.2021

Dear Colleague,

The distribution of samples for round 14 of the external quality assessment scheme Blood coagulation + coagulation factors was started on 26.04.2021. The return deadline was 15.05.2021. Statistical analysis and evaluation of results were performed on 20.05.2021.

The following samples were circulated:

| Sample option | Name | Manufacturer |
|---------------|------------------|--------------|
| A | Kontrollplasma P | Siemens |
| B | Kontrollplasma N | Siemens |

Explanatory notes on the table columns

Sample respective sample

AnzE number of reported results

Metric results

Collective collective of methods to which your results were assigned

* collective not evaluated (either because the number of results in the collective is less than 6 or the number of results within the acceptance limits is less than 5); results are given for informative purposes only

Target value target value assigned to the sample in this round [method used to determine the target value]:

- [a] Reference value
- [b] Consensus value

%-Dev acceptable deviation from target value in %

ALimits acceptance interval

Inside number and proportion of results that lie within the acceptance interval

Outside number and proportion of results that lie outside the acceptance interval

MV mean

Median median

SD Standard deviation

CV coefficient of variation

Nominal results

Result results reported by participants

Reference the result(s) assigned to the sample in the respective round [method used to determine the reference]:

- [a] Reference value
- [b] Consensus value

Proportion Number and proportion of results that correspond to the reference(s)

The following results were obtained:

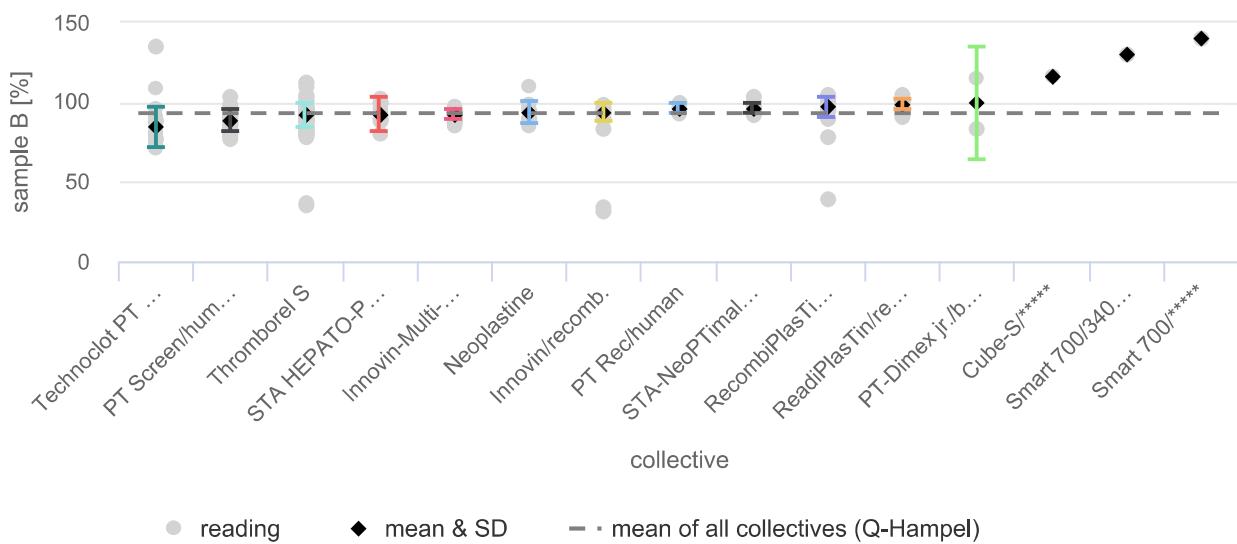
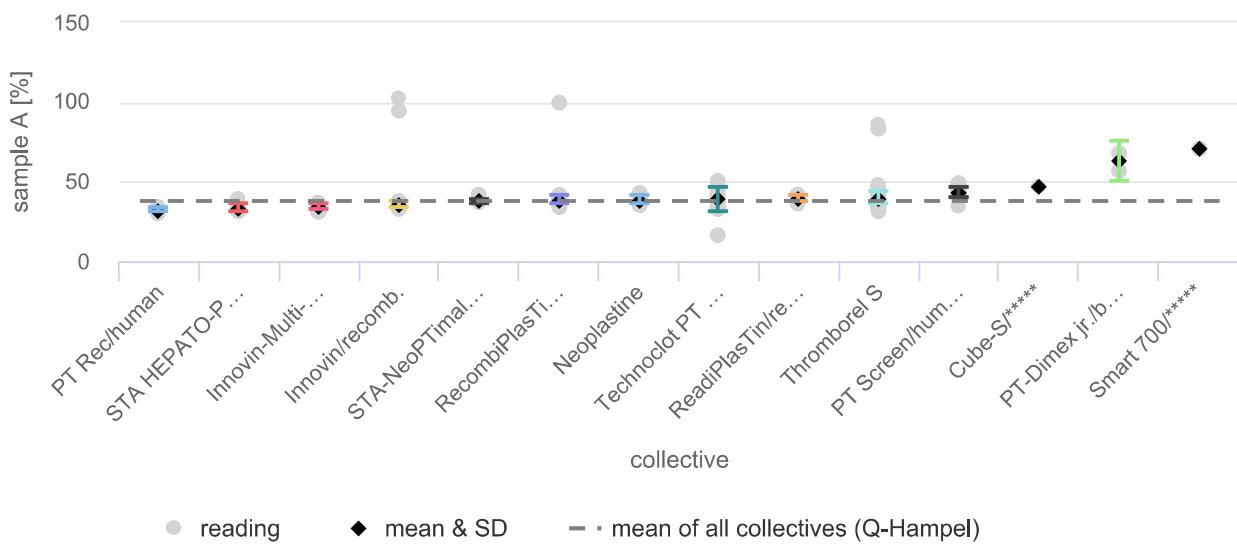
Thromboplastin time (quick) %

Split: Methode

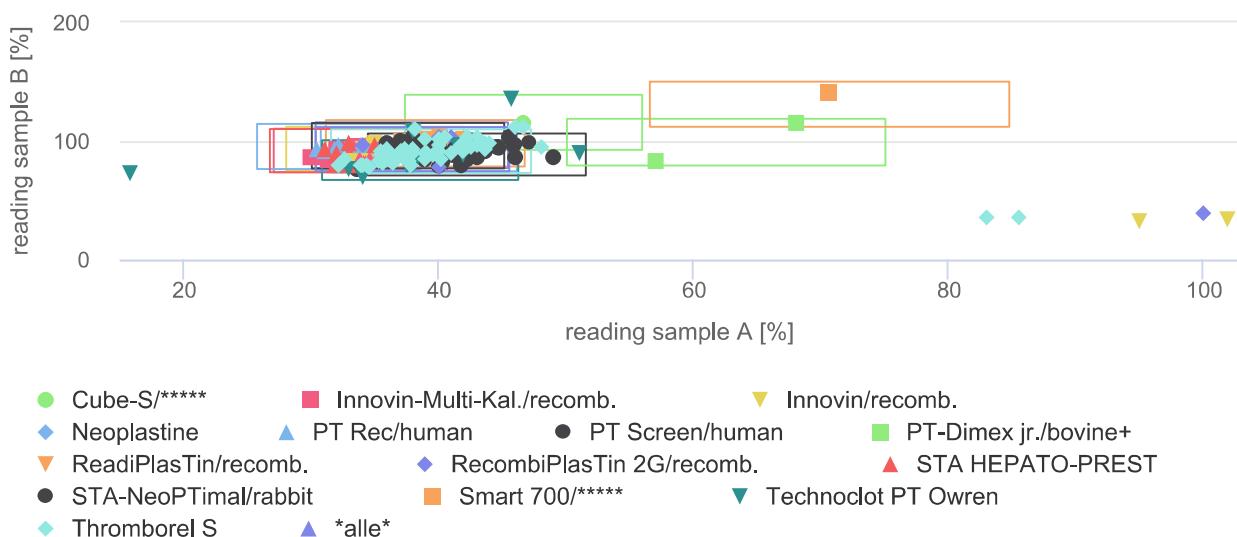
| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|----------------------------|--------|------|------------|-------|------------------|-----------|----------|--------|--------|-------|--------|
| *all* | A | 245 | 37.9 [b] | 20 | [30.3...45.5] | 223 (91%) | 22 (9%) | 37.9 | 38.0 | 4.1 | 10.92 |
| | B | 246 | 93.1 [b] | 20 | [74.5...111.7] | 232 (94%) | 14 (6%) | 93.1 | 94.0 | 6.5 | 6.97 |
| Cube-S***** | A | 1 | 46.6 [b]* | 20* | [37.3...55.9]* | 1 (100%)* | 0 (0%)* | 46.6* | 46.6* | -* | -* |
| | B | 1 | 115.8 [b]* | 20* | [92.6...139.0]* | 1 (100%)* | 0 (0%)* | 115.8* | 115.8* | -* | -* |
| Innovin-Multi-Kal./recomb. | A | 31 | 33.8 [b] | 20 | [27.0...40.6] | 31 (100%) | 0 (0%) | 33.8 | 34.0 | 1.5 | 4.48 |
| | B | 31 | 91.9 [b] | 20 | [73.6...110.3] | 31 (100%) | 0 (0%) | 91.9 | 93.0 | 3.2 | 3.43 |
| Innovin/recomb. | A | 13 | 35.0 [b] | 20 | [28.0...41.9] | 11 (85%) | 2 (15%) | 35.0 | 35.0 | 1.6 | 4.70 |
| | B | 13 | 93.3 [b] | 20 | [74.6...112.0] | 11 (85%) | 2 (15%) | 93.3 | 92.8 | 5.1 | 5.45 |
| Neoplastine | A | 10 | 38.4 [b] | 20 | [30.7...46.1] | 10 (100%) | 0 (0%) | 38.4 | 38.0 | 2.3 | 6.11 |
| | B | 10 | 93.0 [b] | 20 | [74.4...111.6] | 10 (100%) | 0 (0%) | 93.0 | 92.0 | 7.2 | 7.75 |
| PT Rec/human | A | 7 | 32.1 [b] | 20 | [25.7...38.5] | 7 (100%) | 0 (0%) | 32.1 | 32.2 | 1.6 | 5.11 |
| | B | 7 | 95.3 [b] | 20 | [76.2...114.4] | 7 (100%) | 0 (0%) | 95.3 | 96.3 | 3.3 | 3.43 |
| PT Screen/human | A | 25 | 42.9 [b] | 20 | [34.4...51.5] | 24 (96%) | 1 (4%) | 42.9 | 42.6 | 2.9 | 6.75 |
| | B | 25 | 88.7 [b] | 20 | [70.9...106.4] | 25 (100%) | 0 (0%) | 88.7 | 88.2 | 7.0 | 7.90 |
| PT-Dimex jr./bovine+ | A | 2 | 62.5 [b]* | 20* | [50.0...75.0]* | 2 (100%)* | 0 (0%)* | 62.5* | 62.5* | 12.2* | 19.53* |
| | B | 2 | 99.0 [b]* | 20* | [79.2...118.8]* | 2 (100%)* | 0 (0%)* | 99.0* | 99.0* | 35.5* | 35.86* |
| ReadiPlasTin/recomb. | A | 26 | 38.9 [b] | 20 | [31.1...46.7] | 26 (100%) | 0 (0%) | 38.9 | 39.0 | 1.6 | 4.08 |
| | B | 26 | 98.1 [b] | 20 | [78.5...117.7] | 26 (100%) | 0 (0%) | 98.1 | 99.0 | 3.2 | 3.26 |
| RecombiPlasTin 2G/recomb. | A | 16 | 37.9 [b] | 20 | [30.3...45.4] | 15 (94%) | 1 (6%) | 37.9 | 38.0 | 2.5 | 6.65 |
| | B | 16 | 96.4 [b] | 20 | [77.1...115.7] | 15 (94%) | 1 (6%) | 96.4 | 95.6 | 5.8 | 6.04 |
| STA HEPATO-PREST | A | 9 | 33.4 [b] | 20 | [26.7...40.1] | 9 (100%) | 0 (0%) | 33.4 | 33.0 | 2.1 | 6.24 |
| | B | 9 | 91.9 [b] | 20 | [73.5...110.2] | 9 (100%) | 0 (0%) | 91.9 | 93.0 | 10.4 | 11.34 |
| STA-NeoOPTimal/rabbit | A | 28 | 37.5 [b] | 20 | [30.0...45.1] | 28 (100%) | 0 (0%) | 37.5 | 37.6 | 1.4 | 3.61 |
| | B | 28 | 96.0 [b] | 20 | [76.8...115.2] | 28 (100%) | 0 (0%) | 96.0 | 95.5 | 3.1 | 3.21 |
| Smart 700***** | A | 1 | 70.6 [b]* | 20* | [56.5...84.7]* | 1 (100%)* | 0 (0%)* | 70.6* | 70.6* | -* | -* |
| | B | 1 | 140.0 [b]* | 20* | [112.0...150.0]* | 1 (100%)* | 0 (0%)* | 140.0* | 140.0* | -* | -* |

| | | | | | | | | | | | |
|---------------------|---|----|---------------|-----|------------------|--------------|---------|--------|--------|------|-------|
| Smart 700/340/**** | B | 1 | 130.1 [b]* | 20* | [104.1...150.0]* | 1 (100%)* | 0 (0%)* | 130.1* | 130.1* | -* | -* |
| | | | | | | | | | | | |
| Technoclot PT Owren | A | 13 | 38.5 [b] | 20 | [30.8...46.2] | 11 (85%) | 2 (15%) | 38.5 | 38.0 | 7.0 | 18.31 |
| | B | 13 | 84.0 [b] | 20 | [67.2...100.8] | 11 (85%) | 2 (15%) | 84.0 | 81.2 | 12.6 | 15.06 |
| | | | | | | | | | | | |
| Thromborel S | A | 63 | 39.3 [b] | 20 | [31.5...47.2] | 60 (95%) | 3 (5%) | 39.3 | 39.5 | 3.9 | 9.82 |
| | B | 63 | 91.5 [b] | 20 | [73.2...109.9] | 58 (92%) | 5 (8%) | 91.5 | 91.6 | 7.7 | 8.44 |

S-Curves of all samples



Youden-Plots of all sample pairs

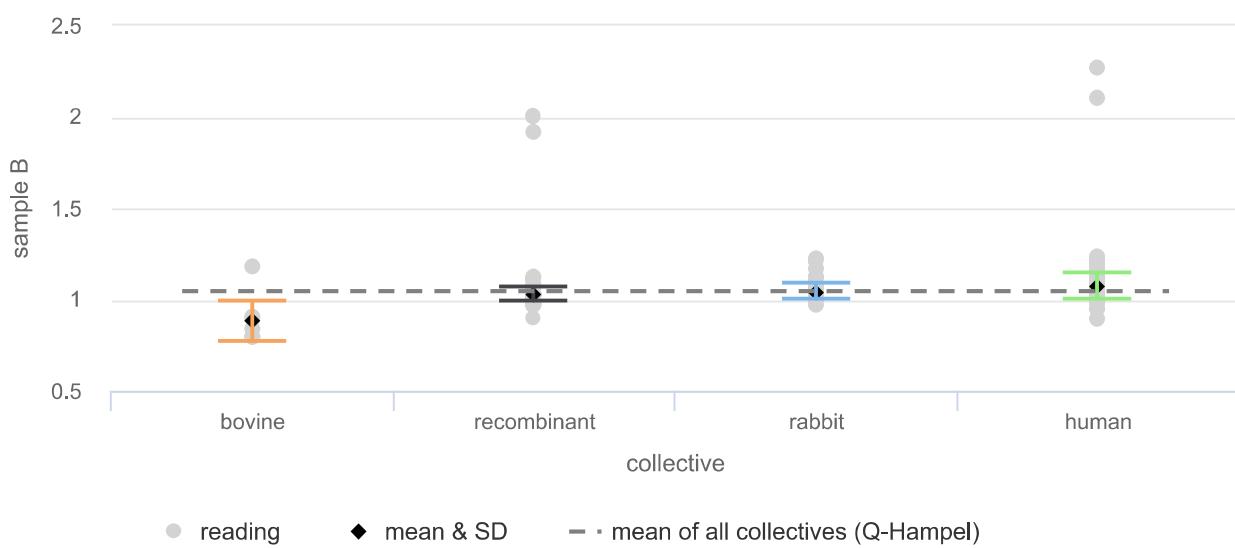
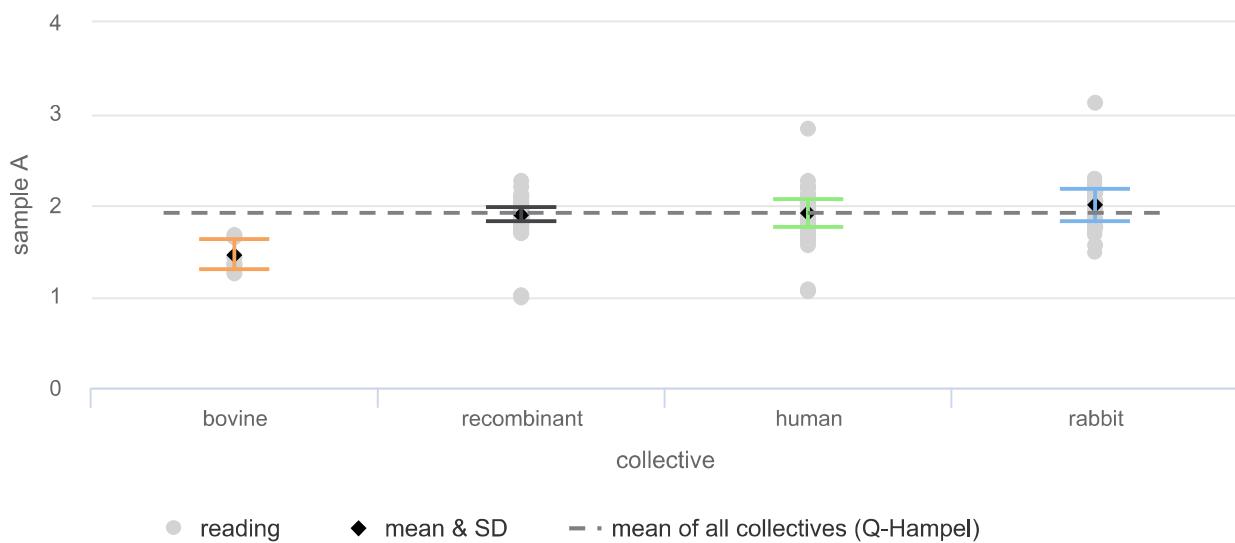


INR

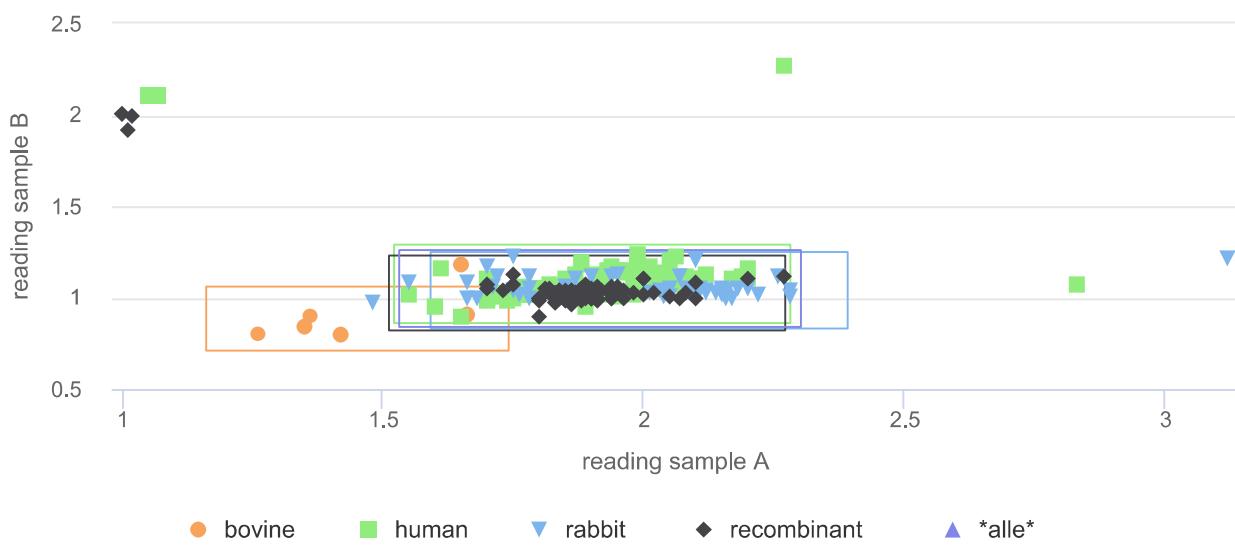
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|-------------|--------|------|----------|-------|---------------|--------------|----------|------|--------|------|-------|
| *all* | A | 249 | 1.92 [b] | 20 | [1.53...2.30] | 237 (95%) | 12 (5%) | 1.92 | 1.90 | 0.16 | 8.59 |
| | B | 247 | 1.05 [b] | 20 | [0.84...1.26] | 239 (97%) | 8 (3%) | 1.05 | 1.04 | 0.05 | 5.00 |
| bovine | A | 6 | 1.45 [b] | 20 | [1.16...1.74] | 6 (100%) | 0 (0%) | 1.45 | 1.39 | 0.17 | 11.48 |
| | B | 6 | 0.88 [b] | 20 | [0.71...1.06] | 5 (83%) | 1 (17%) | 0.88 | 0.87 | 0.11 | 12.47 |
| human | A | 97 | 1.90 [b] | 20 | [1.52...2.28] | 94 (97%) | 3 (3%) | 1.90 | 1.91 | 0.16 | 8.37 |
| | B | 96 | 1.07 [b] | 20 | [0.86...1.29] | 93 (97%) | 3 (3%) | 1.07 | 1.07 | 0.07 | 6.36 |
| rabbit | A | 57 | 1.99 [b] | 20 | [1.59...2.39] | 54 (95%) | 3 (5%) | 1.99 | 2.05 | 0.18 | 8.91 |
| | B | 57 | 1.04 [b] | 20 | [0.83...1.25] | 57 (100%) | 0 (0%) | 1.04 | 1.04 | 0.04 | 3.87 |
| recombinant | A | 89 | 1.89 [b] | 20 | [1.51...2.27] | 86 (97%) | 3 (3%) | 1.89 | 1.88 | 0.08 | 4.44 |
| | B | 88 | 1.03 [b] | 20 | [0.82...1.23] | 85 (97%) | 3 (3%) | 1.03 | 1.03 | 0.04 | 3.58 |

S-Curves of all samples



Youden-Plots of all sample pairs

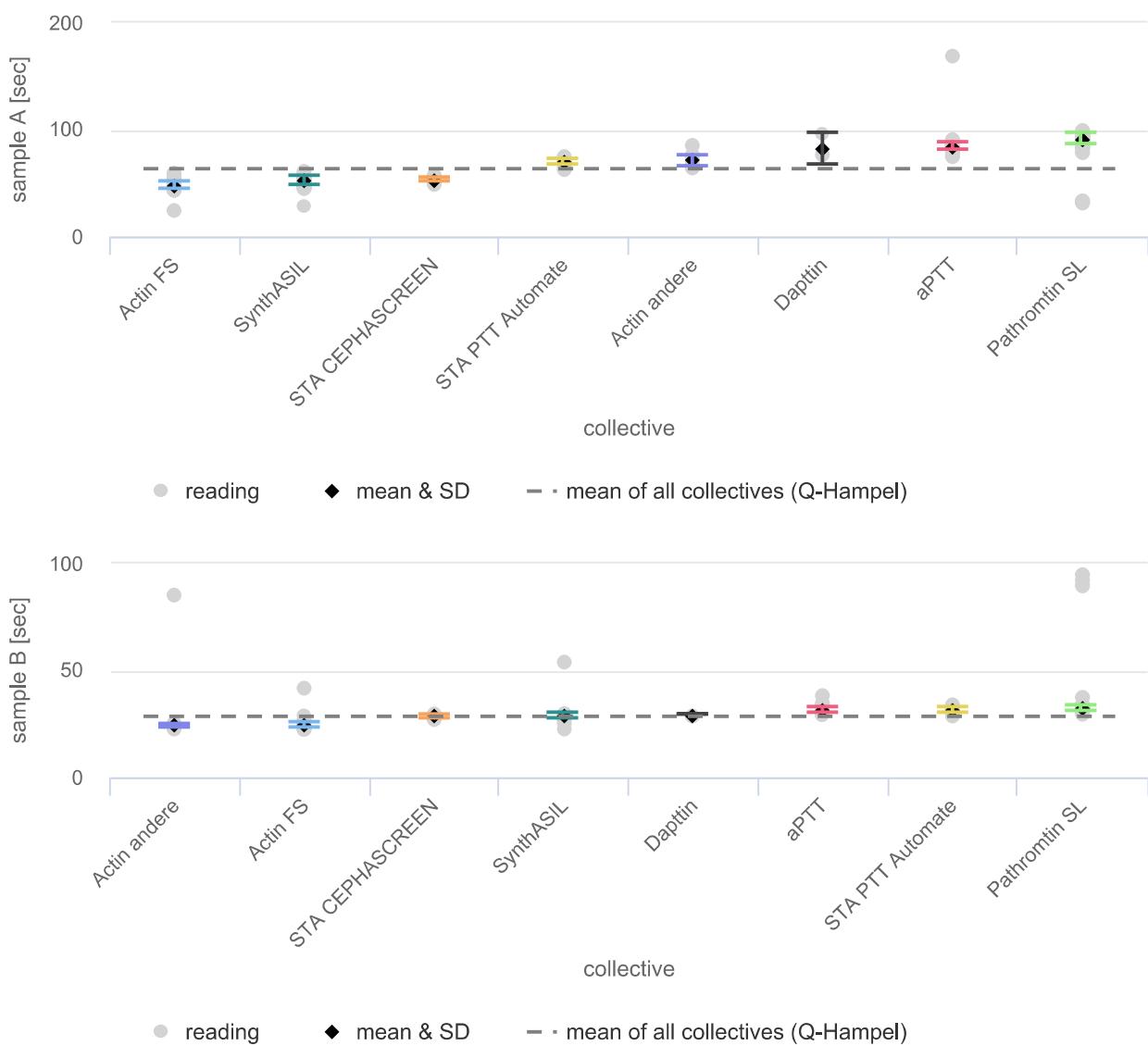


Partielle Thromboplastinzeit (aPTT) sec

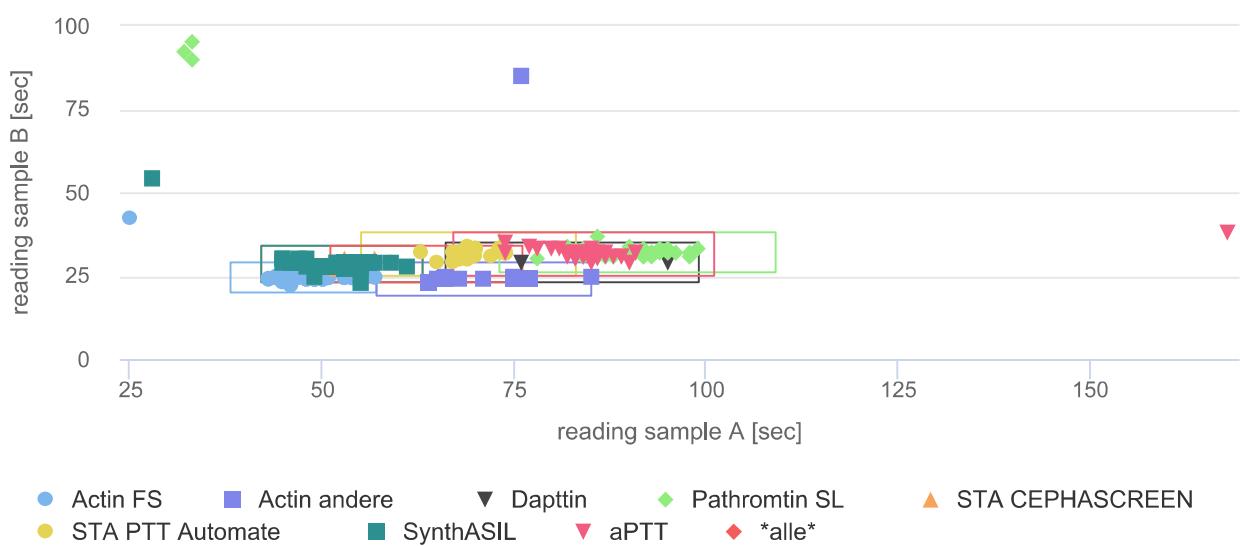
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------------|--------|------|---------|-------|------------|--------------|-----------|-----|--------|-----|--------|
| *all* | A | 222 | 63 [b] | 20 | [51...76] | 96 (43%) | 126 (57%) | 63 | 56 | 15 | 23.22 |
| | B | 223 | 29 [b] | 20 | [23...34] | 213 (96%) | 10 (4%) | 29 | 29 | 3 | 12.25 |
| | | | | | | | | | | | |
| Actin FS | A | 54 | 48 [b] | 20 | [38...57] | 52 (96%) | 2 (4%) | 48 | 46 | 4 | 8.19 |
| | B | 55 | 24 [b] | 20 | [20...29] | 54 (98%) | 1 (2%) | 24 | 24 | 1 | 3.84 |
| | | | | | | | | | | | |
| Actin andere | A | 13 | 71 [b] | 20 | [57...85] | 13 (100%) | 0 (0%) | 71 | 71 | 5 | 7.41 |
| | B | 13 | 24 [b] | 20 | [19...29] | 12 (92%) | 1 (8%) | 24 | 24 | 1 | 3.54 |
| | | | | | | | | | | | |
| Dapttin | A | 3 | 82 [b]* | 20* | [66...99]* | 3 (100%)* | 0 (0%)* | 82* | 76* | 15* | 18.14* |
| | B | 3 | 29 [b]* | 20* | [23...35]* | 3 (100%)* | 0 (0%)* | 29* | 29* | 0* | 0.00* |
| | | | | | | | | | | | |
| Pathromtin SL | A | 35 | 91 [b] | 20 | [73...109] | 32 (91%) | 3 (9%) | 91 | 92 | 6 | 6.14 |
| | B | 35 | 32 [b] | 20 | [26...38] | 32 (91%) | 3 (9%) | 32 | 32 | 1 | 4.29 |
| | | | | | | | | | | | |
| STA CEPHASCREEN | A | 21 | 53 [b] | 20 | [42...63] | 21 (100%) | 0 (0%) | 53 | 53 | 2 | 3.73 |
| | B | 21 | 29 [b] | 20 | [23...34] | 21 (100%) | 0 (0%) | 29 | 29 | 1 | 3.02 |
| | | | | | | | | | | | |
| STA PTT Automate | A | 20 | 69 [b] | 20 | [55...83] | 20 (100%) | 0 (0%) | 69 | 70 | 3 | 3.83 |
| | B | 20 | 32 [b] | 20 | [25...38] | 20 (100%) | 0 (0%) | 32 | 32 | 1 | 4.22 |
| | | | | | | | | | | | |
| SynthASIL | A | 42 | 52 [b] | 20 | [42...63] | 41 (98%) | 1 (2%) | 52 | 53 | 4 | 7.33 |
| | B | 42 | 29 [b] | 20 | [23...34] | 41 (98%) | 1 (2%) | 29 | 29 | 1 | 3.38 |
| | | | | | | | | | | | |
| aPTT | A | 34 | 84 [b] | 20 | [67...101] | 33 (97%) | 1 (3%) | 84 | 85 | 4 | 4.50 |
| | B | 34 | 31 [b] | 20 | [25...38] | 34 (100%) | 0 (0%) | 31 | 32 | 1 | 4.66 |

S-Curves of all samples



Youden-Plots of all sample pairs

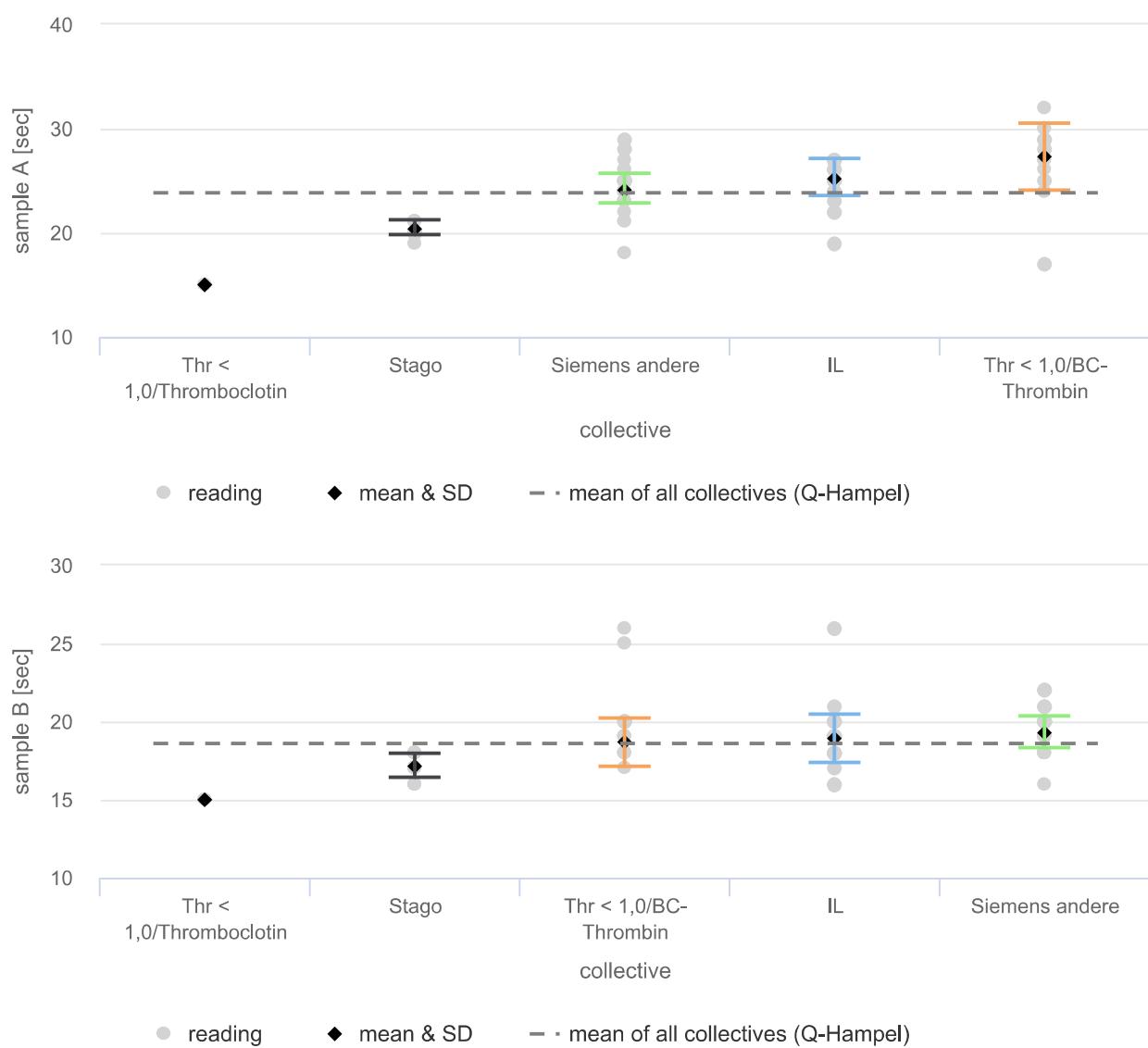


Thrombinzeit sec

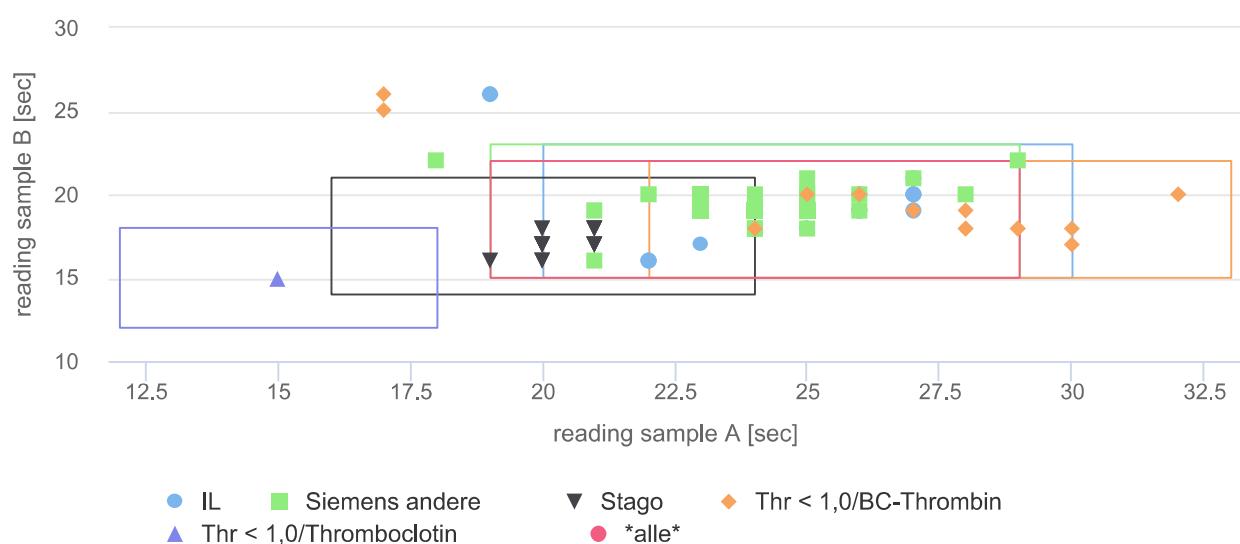
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|-------------------------|--------|------|---------|-------|------------|--------------|----------|-----|--------|----|-------|
| *all* | A | 99 | 24 [b] | 20 | [19...29] | 92 (93%) | 7 (7%) | 24 | 24 | 3 | 13.32 |
| | B | 98 | 19 [b] | 20 | [15...22] | 95 (97%) | 3 (3%) | 19 | 19 | 2 | 8.32 |
| | | | | | | | | | | | |
| IL | A | 25 | 25 [b] | 20 | [20...30] | 24 (96%) | 1 (4%) | 25 | 25 | 2 | 7.32 |
| | B | 25 | 19 [b] | 20 | [15...23] | 24 (96%) | 1 (4%) | 19 | 19 | 2 | 8.05 |
| | | | | | | | | | | | |
| Siemens andere | A | 37 | 24 [b] | 20 | [19...29] | 36 (97%) | 1 (3%) | 24 | 24 | 1 | 5.90 |
| | B | 37 | 19 [b] | 20 | [15...23] | 37 (100%) | 0 (0%) | 19 | 19 | 1 | 5.40 |
| | | | | | | | | | | | |
| Stago | A | 21 | 20 [b] | 20 | [16...24] | 21 (100%) | 0 (0%) | 20 | 20 | 1 | 3.59 |
| | B | 20 | 17 [b] | 20 | [14...21] | 20 (100%) | 0 (0%) | 17 | 17 | 1 | 4.68 |
| | | | | | | | | | | | |
| Thr < 1,0/BC-Thrombin | A | 15 | 27 [b] | 20 | [22...33] | 13 (87%) | 2 (13%) | 27 | 28 | 3 | 11.87 |
| | B | 15 | 19 [b] | 20 | [15...22] | 13 (87%) | 2 (13%) | 19 | 19 | 2 | 8.28 |
| | | | | | | | | | | | |
| Thr < 1,0/Thromboclotin | A | 1 | 15 [b]* | 20* | [12...18]* | 1 (100%)* | 0 (0%)* | 15* | 15* | -* | -* |
| | B | 1 | 15 [b]* | 20* | [12...18]* | 1 (100%)* | 0 (0%)* | 15* | 15* | -* | -* |

S-Curves of all samples



Youden-Plots of all sample pairs

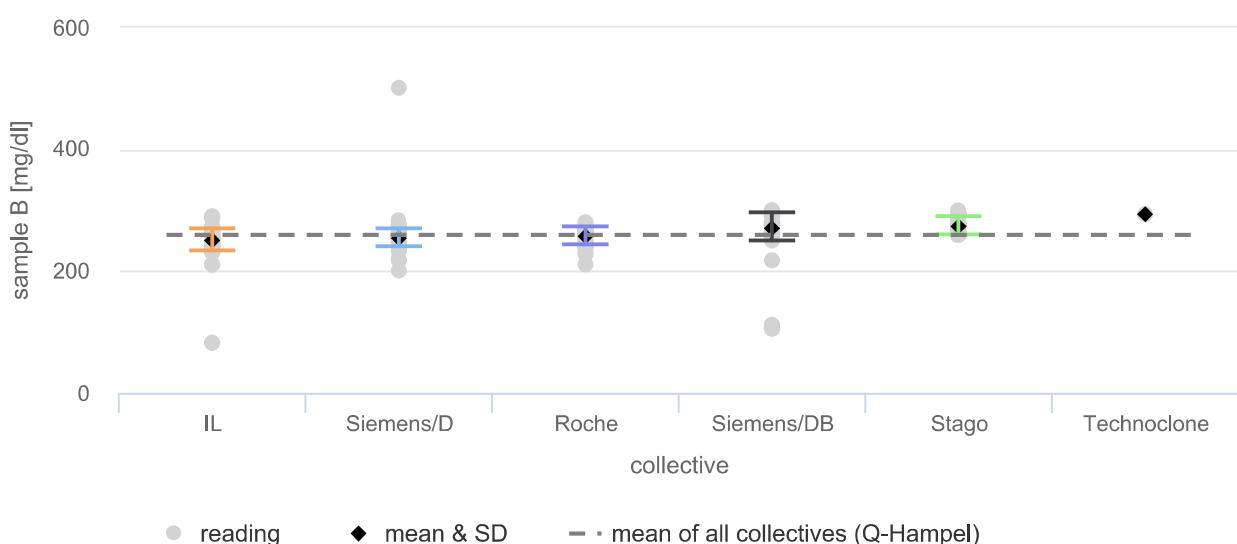
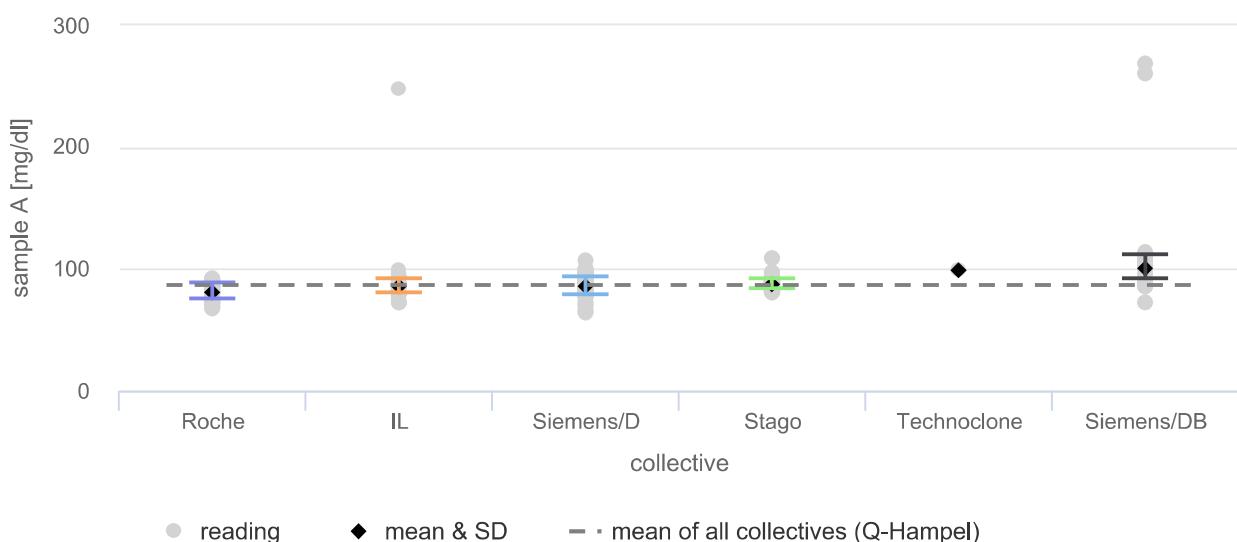


Fibrinogen mg/dl

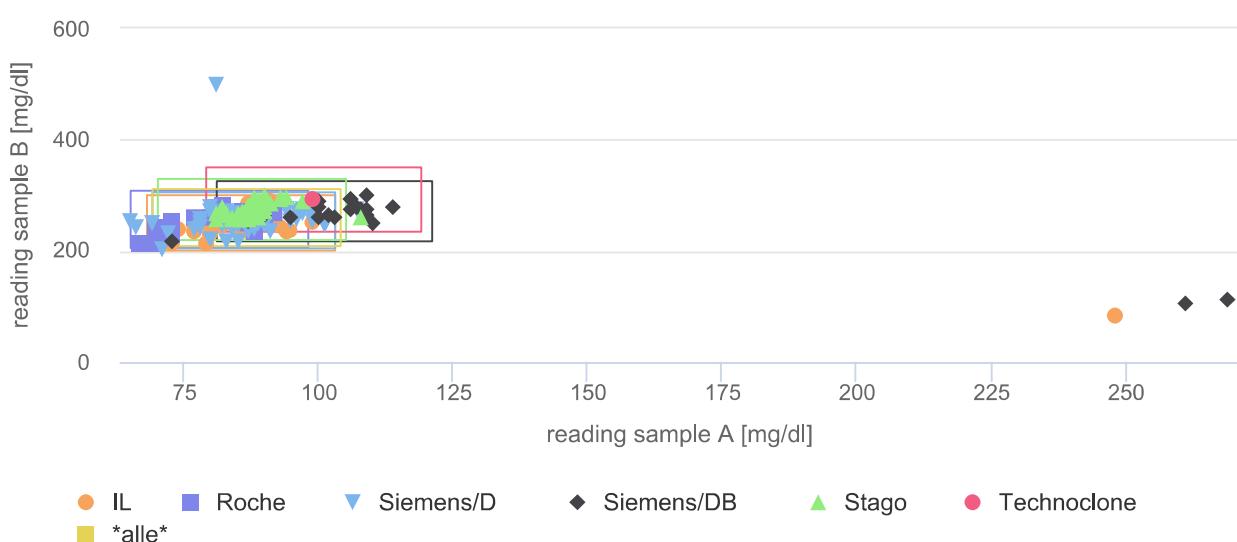
Split: Reagens

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|-------------|--------|------|----------|-------|--------------|--------------|----------|------|--------|----|-------|
| *all* | A | 192 | 87 [b] | 20 | [69...104] | 173 (90%) | 19 (10%) | 87 | 87 | 8 | 8.95 |
| | B | 192 | 260 [b] | 20 | [208...311] | 187 (97%) | 5 (3%) | 260 | 260 | 19 | 7.28 |
| | | | | | | | | | | | |
| IL | A | 39 | 86 [b] | 20 | [68...103] | 38 (97%) | 1 (3%) | 86 | 87 | 6 | 7.41 |
| | B | 39 | 250 [b] | 20 | [200...300] | 38 (97%) | 1 (3%) | 250 | 248 | 18 | 7.27 |
| | | | | | | | | | | | |
| Roche | A | 31 | 82 [b] | 20 | [65...98] | 31 (100%) | 0 (0%) | 82 | 82 | 7 | 8.51 |
| | B | 31 | 257 [b] | 20 | [205...308] | 31 (100%) | 0 (0%) | 257 | 260 | 16 | 6.14 |
| | | | | | | | | | | | |
| Siemens/D | A | 62 | 86 [b] | 20 | [69...103] | 59 (95%) | 3 (5%) | 86 | 85 | 8 | 8.95 |
| | B | 62 | 254 [b] | 20 | [204...305] | 60 (97%) | 2 (3%) | 254 | 254 | 16 | 6.18 |
| | | | | | | | | | | | |
| Siemens/DB | A | 24 | 101 [b] | 20 | [81...121] | 21 (88%) | 3 (12%) | 101 | 106 | 10 | 10.15 |
| | B | 24 | 271 [b] | 20 | [217...325] | 22 (92%) | 2 (8%) | 271 | 264 | 23 | 8.55 |
| | | | | | | | | | | | |
| Stago | A | 35 | 87 [b] | 20 | [70...105] | 34 (97%) | 1 (3%) | 87 | 88 | 4 | 4.83 |
| | B | 35 | 274 [b] | 20 | [219...329] | 35 (100%) | 0 (0%) | 274 | 270 | 14 | 5.07 |
| | | | | | | | | | | | |
| Technoclone | A | 1 | 99 [b]* | 20* | [79...119]* | 1 (100%)* | 0 (0%)* | 99* | 99* | -* | -* |
| | B | 1 | 292 [b]* | 20* | [234...350]* | 1 (100%)* | 0 (0%)* | 292* | 292* | -* | -* |

S-Curves of all samples



Youden-Plots of all sample pairs

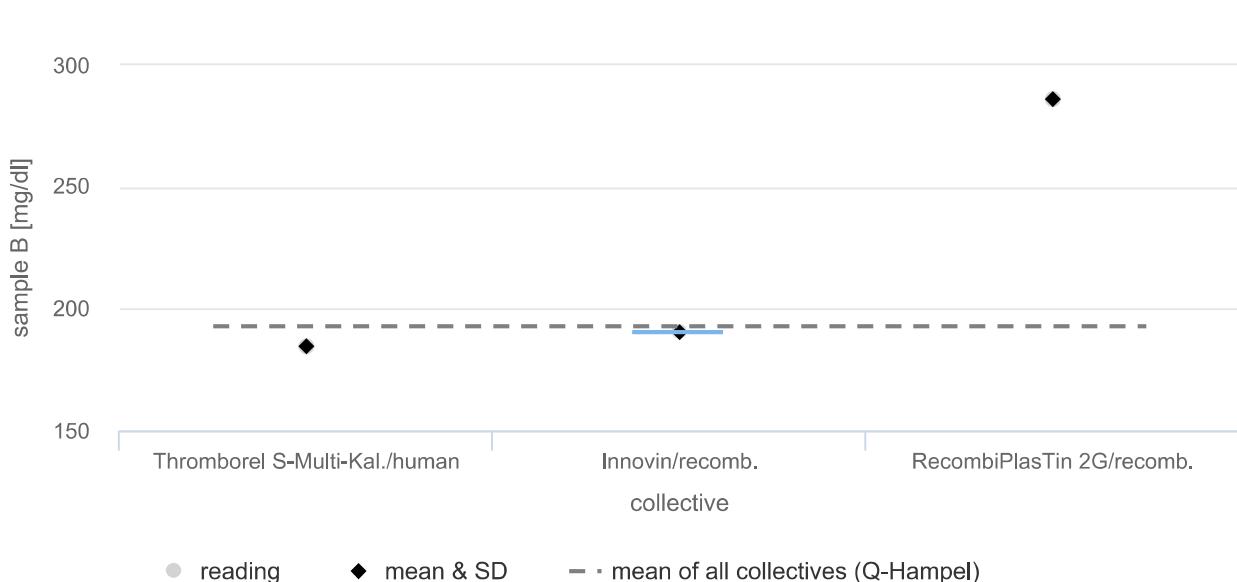
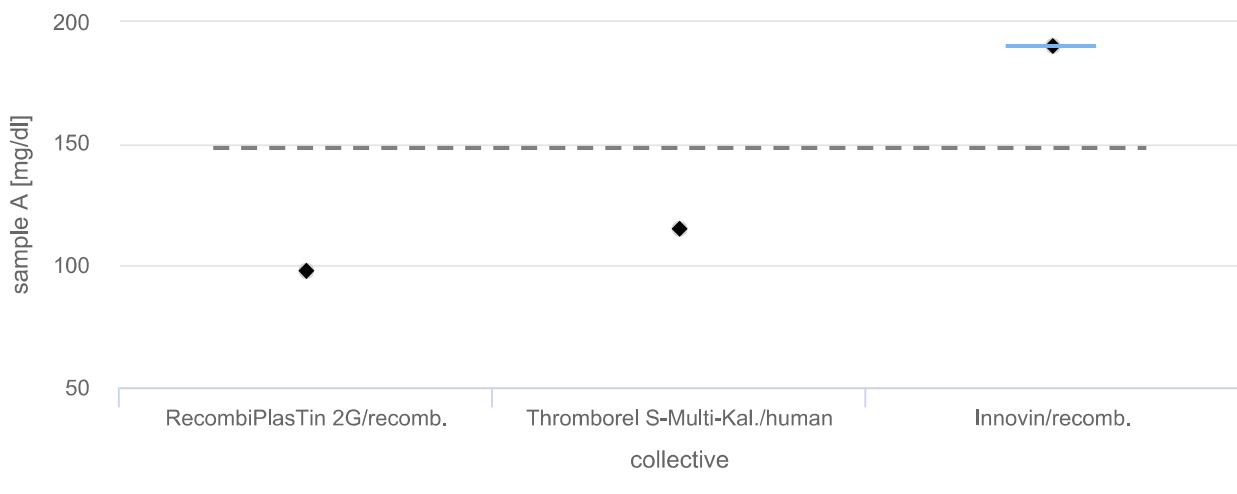


Fibrinogen derived mg/dl

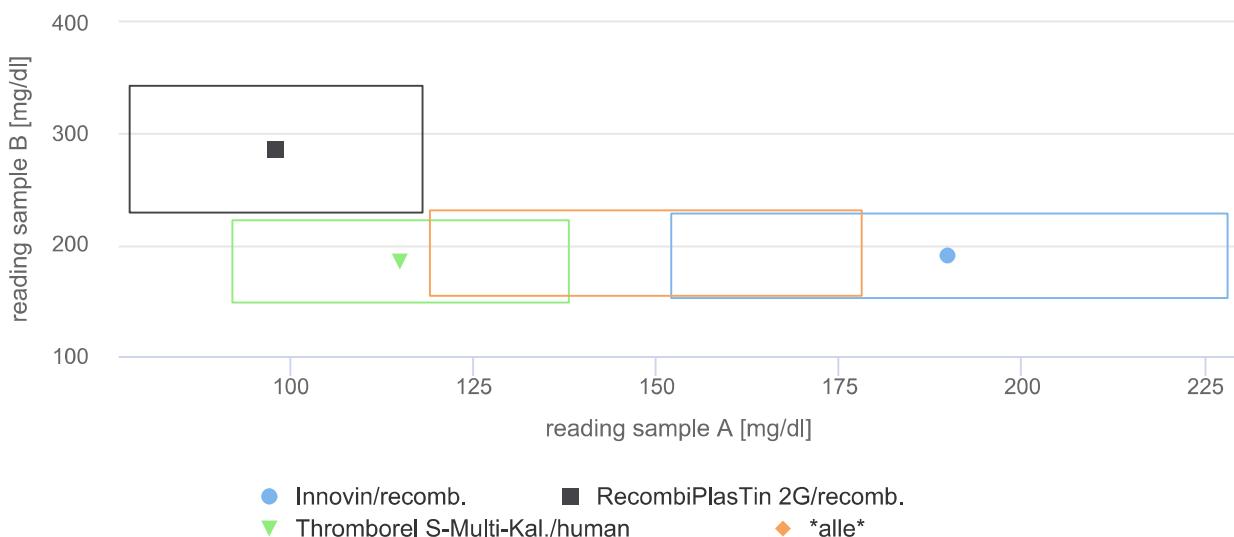
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|-------------------------------|--------|------|----------|-------|--------------|--------------|-----------|------|--------|-----|--------|
| *all* | A | 4 | 148 [b]* | 20* | [119...178]* | 0 (0%)* | 4 (100%)* | 148* | 153* | 67* | 44.89* |
| | B | 4 | 193 [b]* | 20* | [154...231]* | 3 (75%)* | 1 (25%)* | 193* | 190* | 24* | 12.29* |
| Innovin/recomb. | A | 2 | 190 [b]* | 20* | [152...228]* | 2 (100%)* | 0 (0%)* | 190* | 190* | 0* | 0.00* |
| | B | 2 | 190 [b]* | 20* | [152...228]* | 2 (100%)* | 0 (0%)* | 190* | 190* | 0* | 0.00* |
| RecombiPlasTin 2G/recomb. | A | 1 | 98 [b]* | 20* | [78...118]* | 1 (100%)* | 0 (0%)* | 98* | 98* | -* | -* |
| | B | 1 | 286 [b]* | 20* | [229...343]* | 1 (100%)* | 0 (0%)* | 286* | 286* | -* | -* |
| Thromborel S-Multi-Kal./human | A | 1 | 115 [b]* | 20* | [92...138]* | 1 (100%)* | 0 (0%)* | 115* | 115* | -* | -* |
| | B | 1 | 185 [b]* | 20* | [148...222]* | 1 (100%)* | 0 (0%)* | 185* | 185* | -* | -* |

S-Curves of all samples



Youden-Plots of all sample pairs

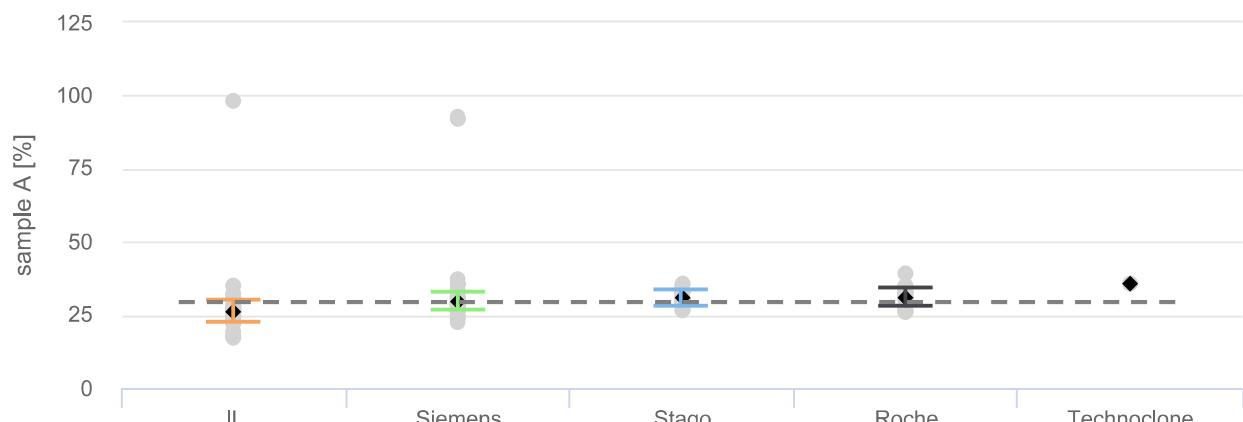


Antithrombin III %

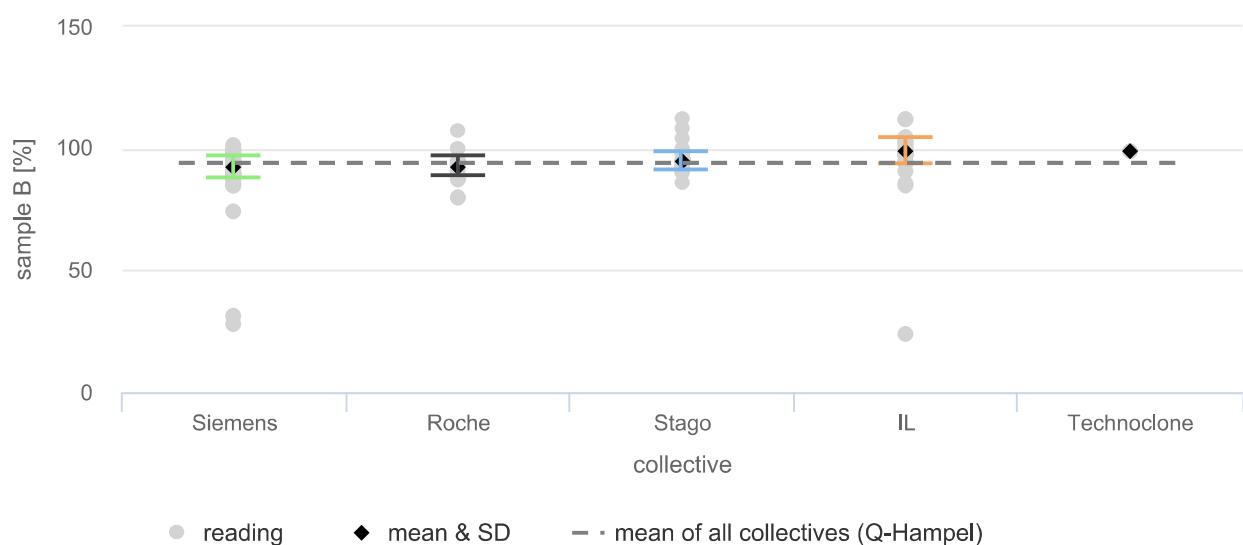
Split: Reagents

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|-------------|--------|------|---------|-------|-------------|--------------|----------|-----|--------|----|-------|
| *all* | A | 150 | 29 [b] | 35 | [19...40] | 145 (97%) | 5 (3%) | 29 | 30 | 4 | 12.00 |
| | B | 150 | 94 [b] | 20 | [75...113] | 146 (97%) | 4 (3%) | 94 | 94 | 5 | 5.53 |
| IL | A | 30 | 26 [b] | 35 | [17...35] | 29 (97%) | 1 (3%) | 26 | 26 | 4 | 15.09 |
| | B | 30 | 99 [b] | 20 | [79...119] | 29 (97%) | 1 (3%) | 99 | 98 | 5 | 5.52 |
| Roche | A | 22 | 31 [b] | 35 | [20...42] | 22 (100%) | 0 (0%) | 31 | 31 | 3 | 9.81 |
| | B | 22 | 93 [b] | 20 | [74...111] | 22 (100%) | 0 (0%) | 93 | 93 | 4 | 4.42 |
| Siemens | A | 68 | 29 [b] | 35 | [19...40] | 66 (97%) | 2 (3%) | 29 | 30 | 3 | 10.07 |
| | B | 68 | 93 [b] | 20 | [74...111] | 66 (97%) | 2 (3%) | 93 | 93 | 5 | 5.00 |
| Stago | A | 29 | 31 [b] | 35 | [20...41] | 29 (100%) | 0 (0%) | 31 | 30 | 3 | 8.93 |
| | B | 29 | 94 [b] | 20 | [76...113] | 29 (100%) | 0 (0%) | 94 | 95 | 4 | 3.99 |
| Technoclone | A | 1 | 36 [b]* | 35* | [23...49]* | 1 (100%)* | 0 (0%)* | 36* | 36* | -* | -* |
| | B | 1 | 99 [b]* | 20* | [79...119]* | 1 (100%)* | 0 (0%)* | 99* | 99* | -* | -* |

S-Curves of all samples

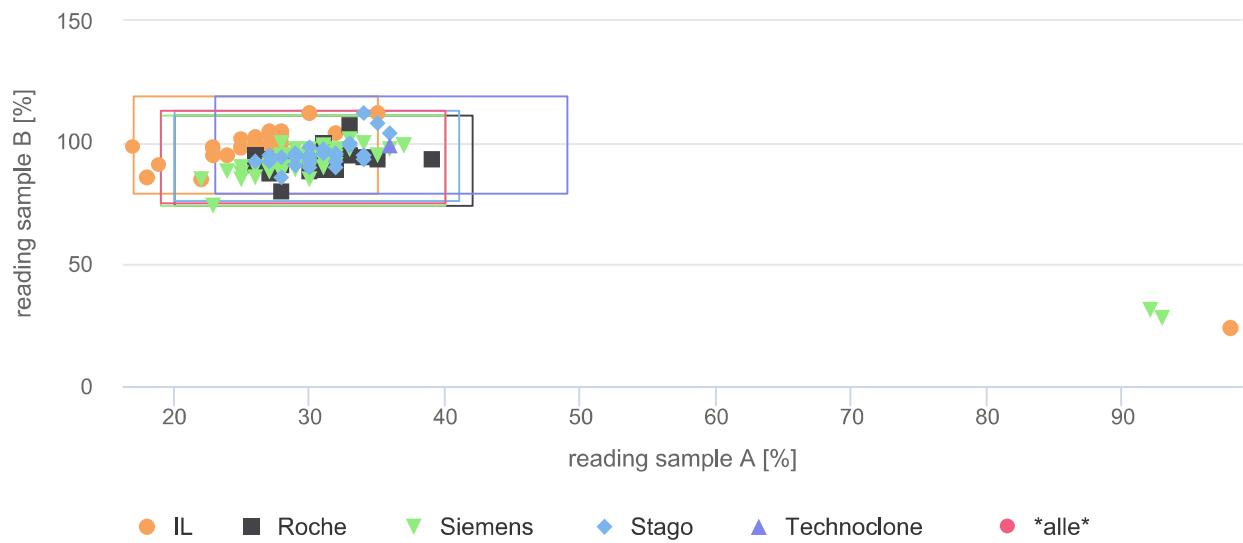


● reading ♦ mean & SD - - - mean of all collectives (Q-Hampel)



● reading ♦ mean & SD - - - mean of all collectives (Q-Hampel)

Youden-Plots of all sample pairs

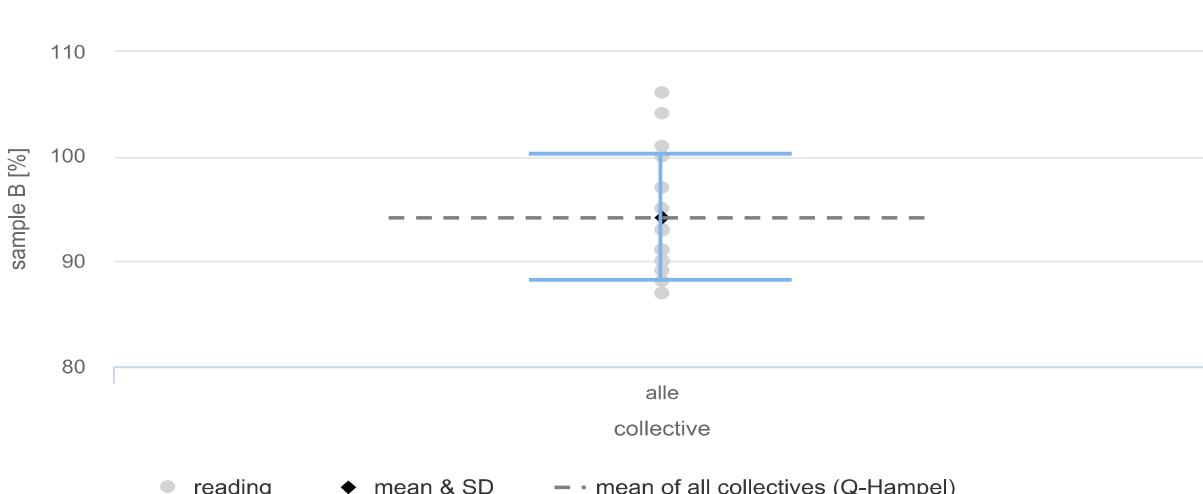
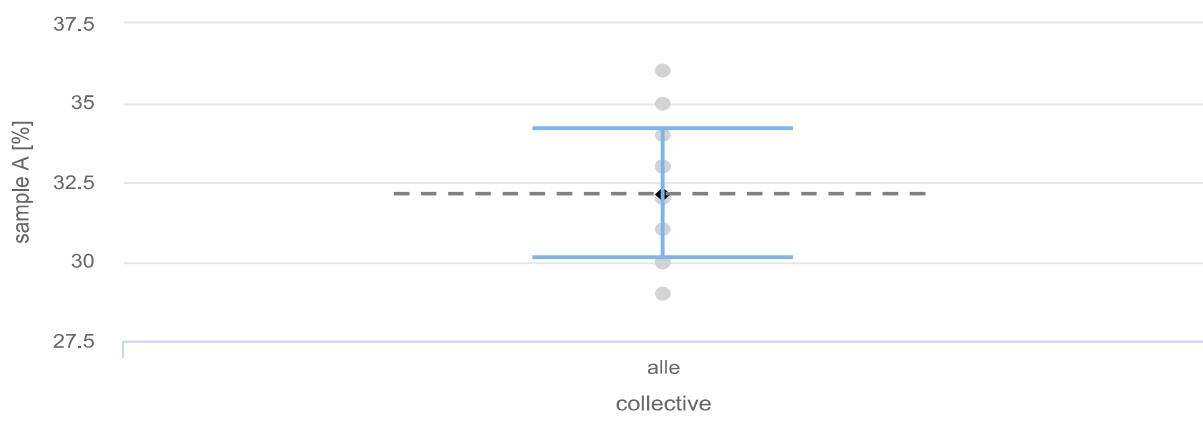


Factor II %

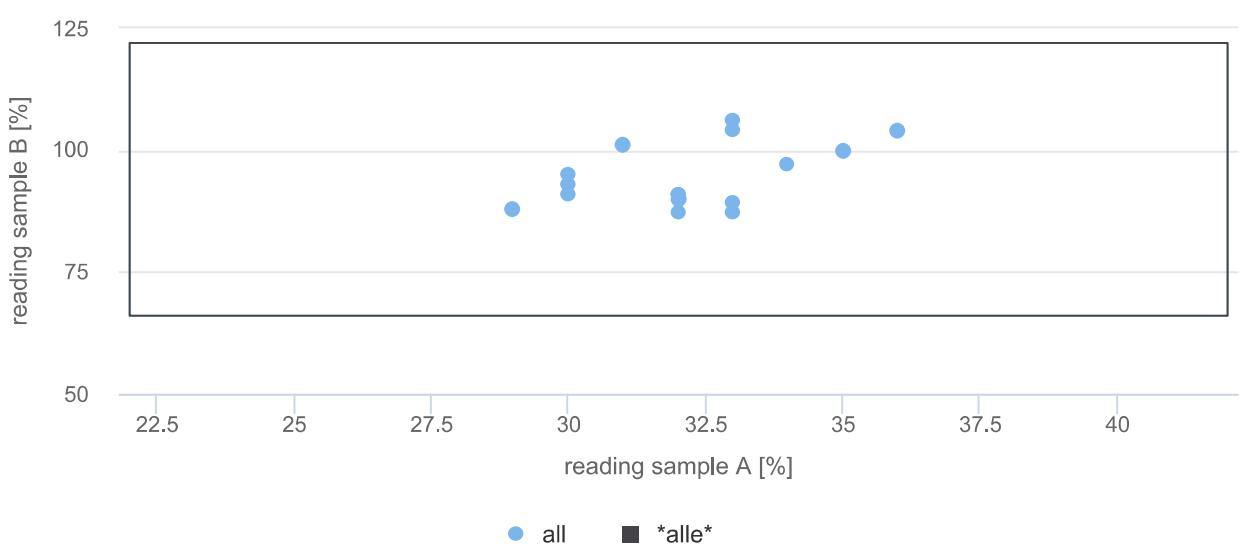
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|--------|-------|------------|--------------|----------|----|--------|----|------|
| alle | A | 17 | 32 [b] | 30 | [22...42] | 17 (100%) | 0 (0%) | 32 | 32 | 2 | 6.31 |
| | B | 17 | 94 [b] | 30 | [66...122] | 17 (100%) | 0 (0%) | 94 | 91 | 6 | 6.41 |

S-Curves of all samples



Youden-Plots of all sample pairs

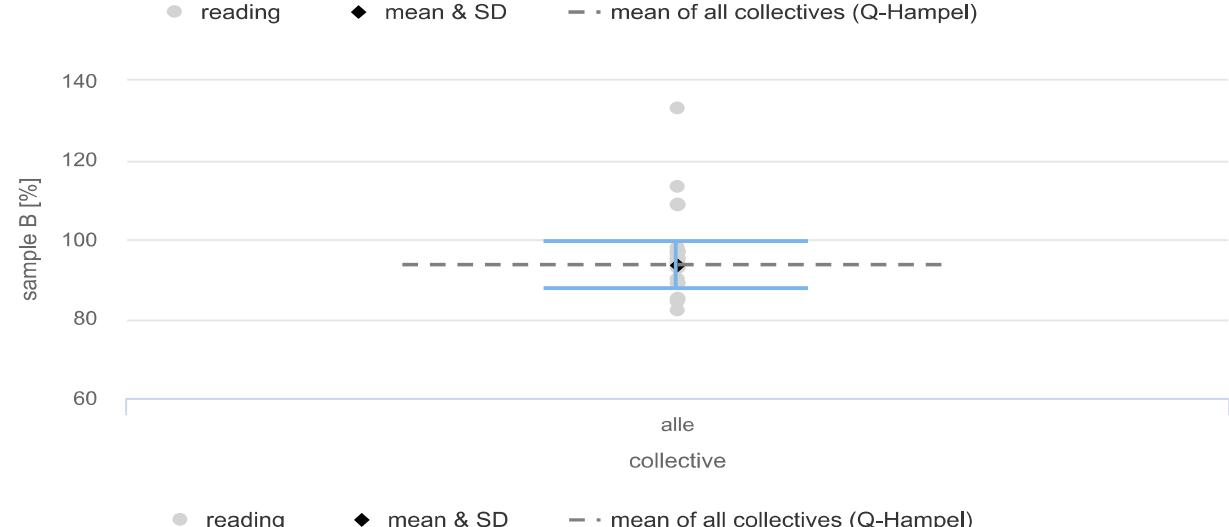
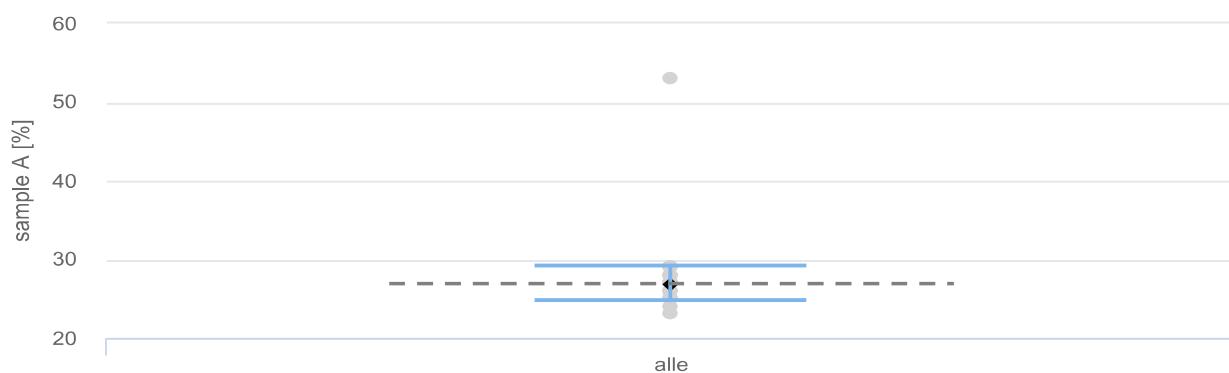


Factor V %

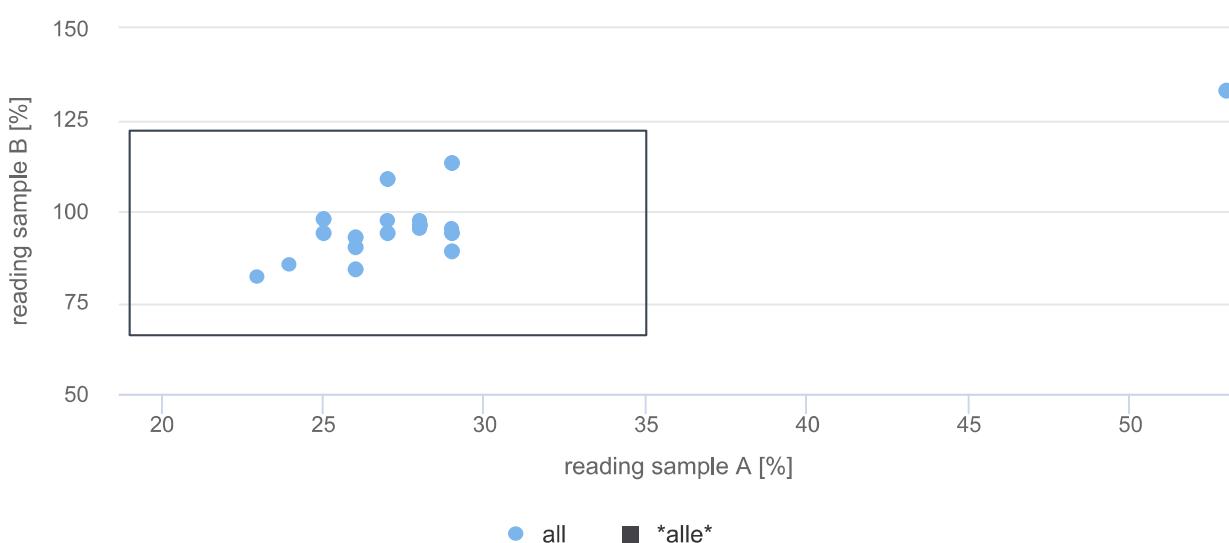
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|--------|-------|------------|-------------|----------|----|--------|----|------|
| alle | A | 19 | 27 [b] | 30 | [19...35] | 18 (95%) | 1 (5%) | 27 | 27 | 2 | 8.36 |
| | B | 19 | 94 [b] | 30 | [66...122] | 18 (95%) | 1 (5%) | 94 | 95 | 6 | 6.31 |

S-Curves of all samples



Youden-Plots of all sample pairs

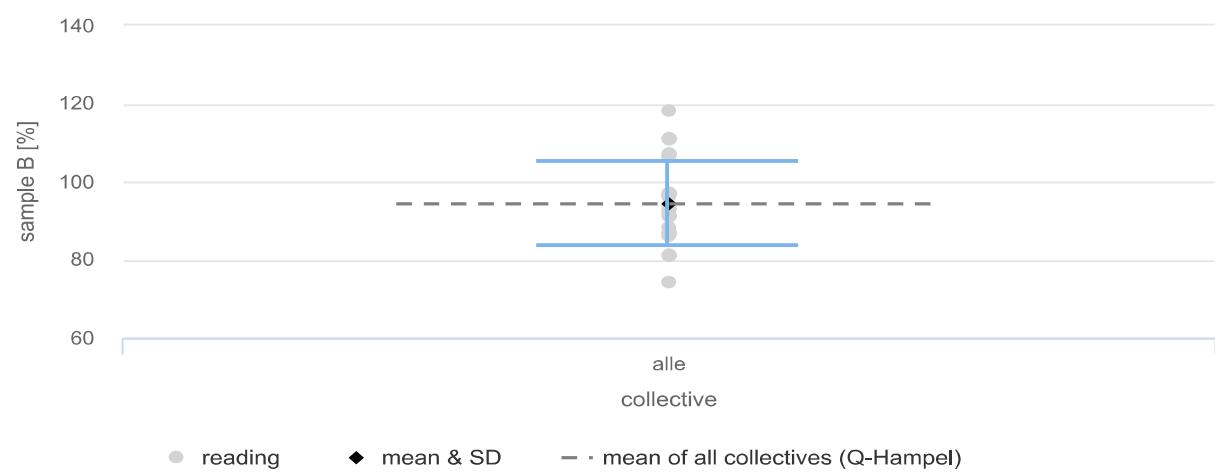
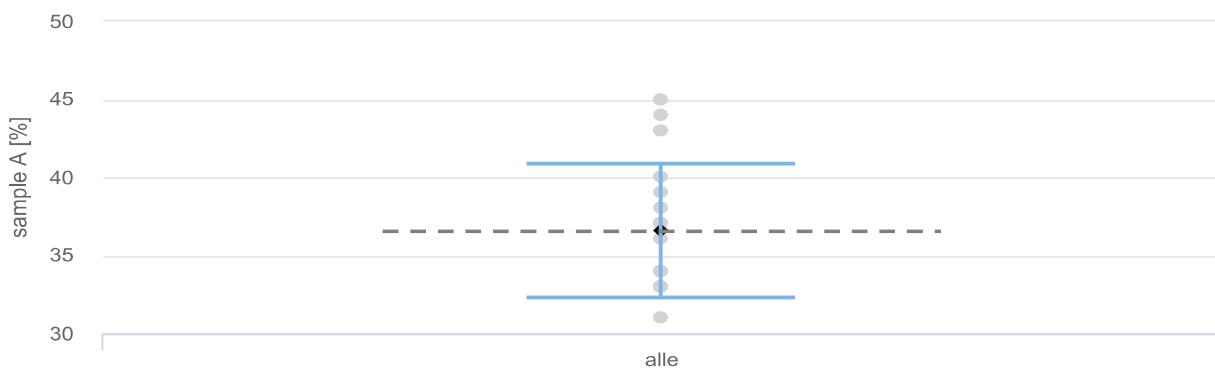


Factor VII %

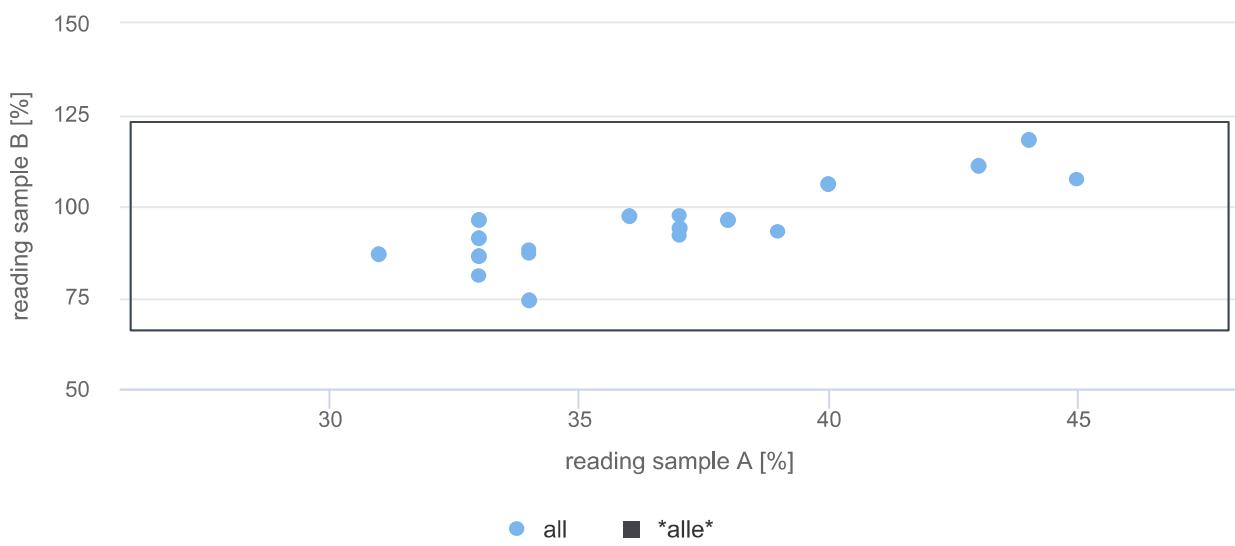
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|--------|-------|------------|--------------|----------|----|--------|----|-------|
| alle | A | 18 | 37 [b] | 30 | [26...48] | 18 (100%) | 0 (0%) | 37 | 37 | 4 | 11.67 |
| | B | 18 | 94 [b] | 30 | [66...123] | 18 (100%) | 0 (0%) | 94 | 94 | 11 | 11.46 |

S-Curves of all samples



Youden-Plots of all sample pairs

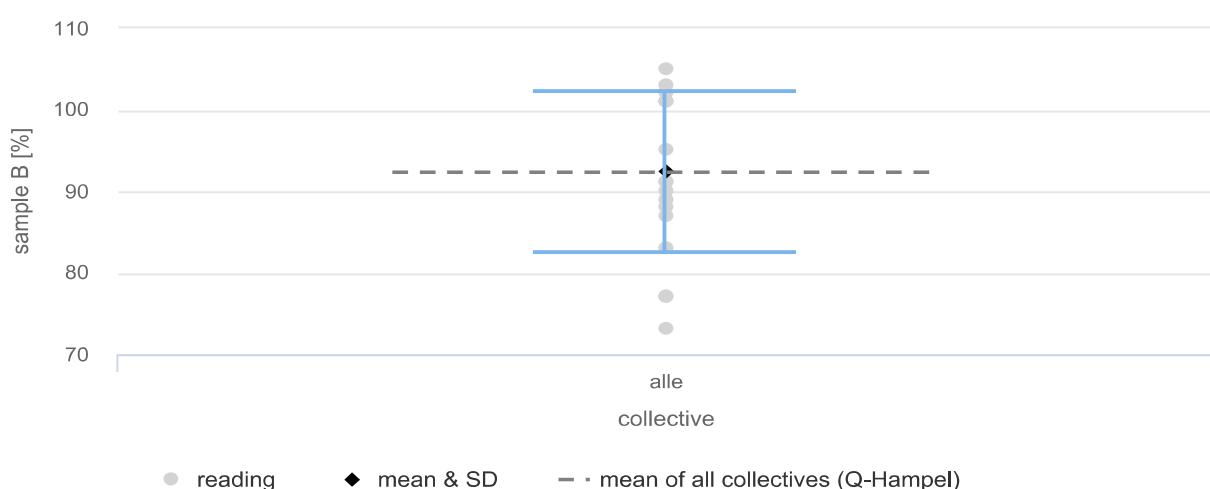
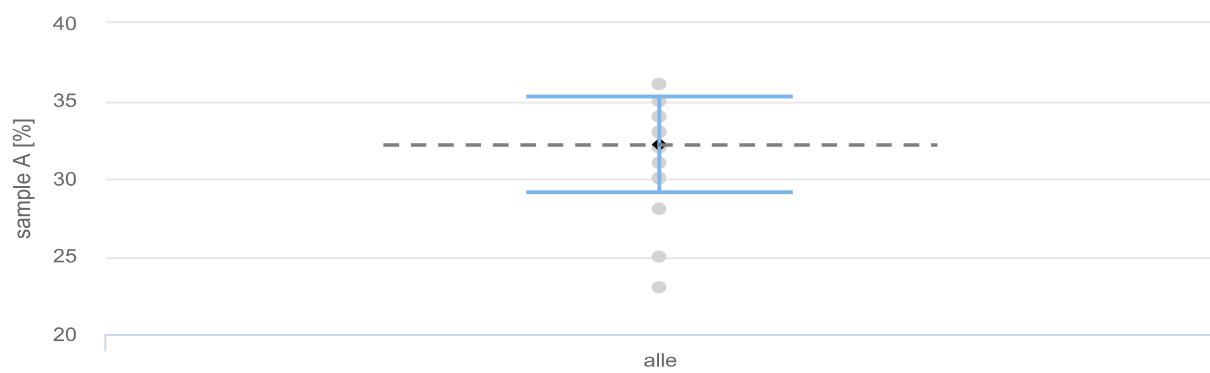


Factor X %

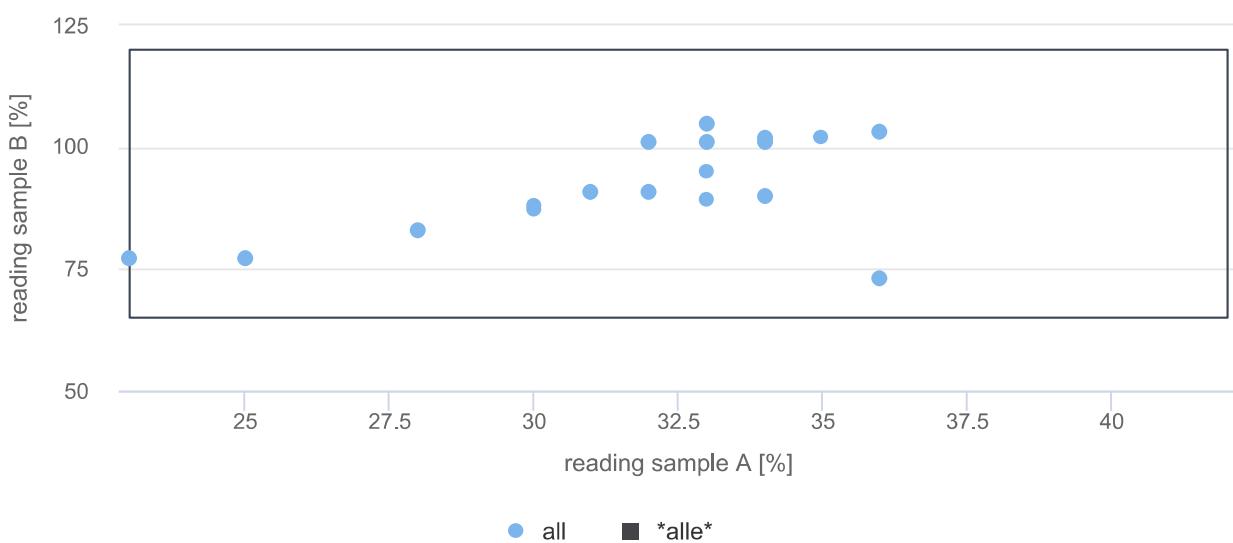
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|--------|-------|------------|--------------|----------|----|--------|----|-------|
| alle | A | 18 | 32 [b] | 30 | [23...42] | 18 (100%) | 0 (0%) | 32 | 33 | 3 | 9.63 |
| | B | 18 | 92 [b] | 30 | [65...120] | 18 (100%) | 0 (0%) | 92 | 91 | 10 | 10.62 |

S-Curves of all samples



Youden-Plots of all sample pairs

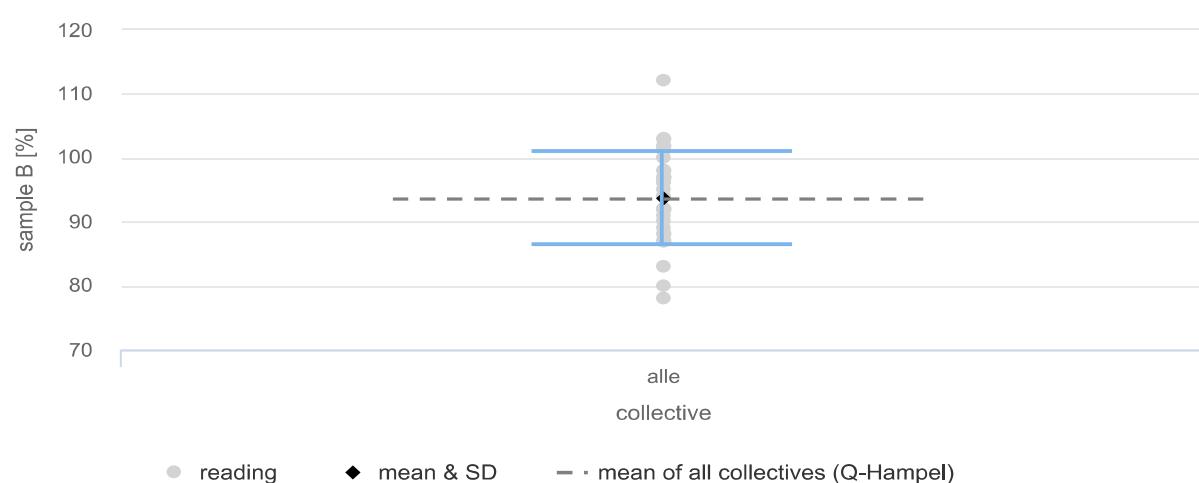
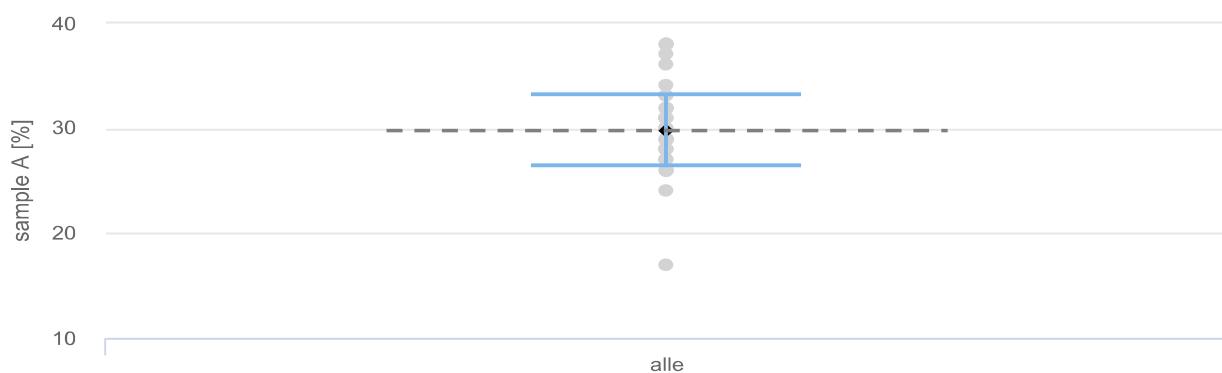


Factor VIII %

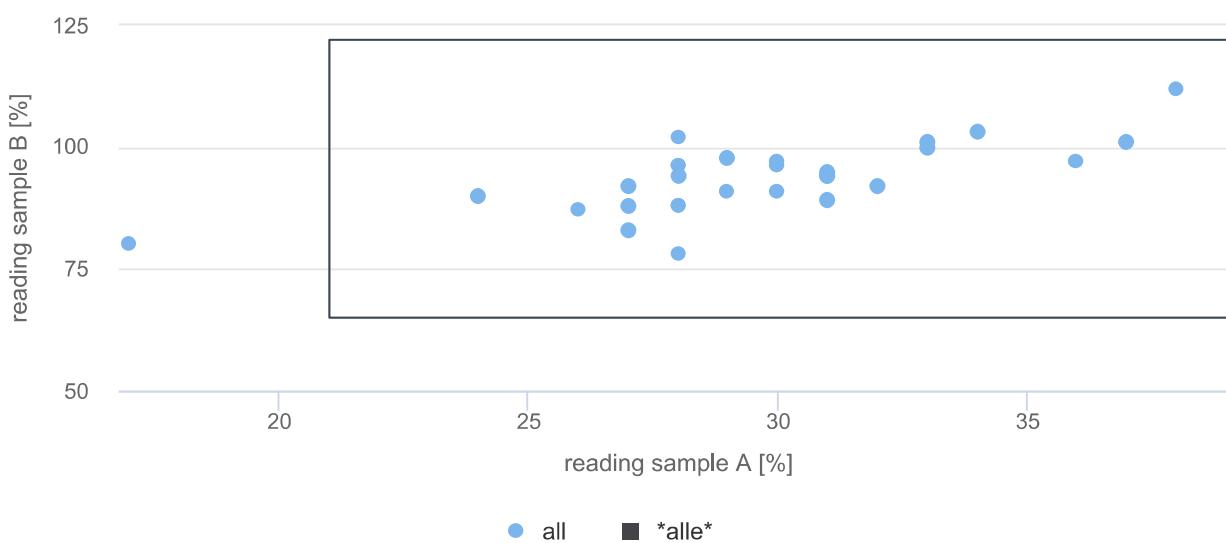
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|--------|-------|------------|--------------|----------|----|--------|----|-------|
| alle | A | 29 | 30 [b] | 30 | [21...39] | 28 (97%) | 1 (3%) | 30 | 29 | 3 | 11.56 |
| | B | 29 | 94 [b] | 30 | [65...122] | 29 (100%) | 0 (0%) | 94 | 94 | 7 | 7.76 |

S-Curves of all samples



Youden-Plots of all sample pairs

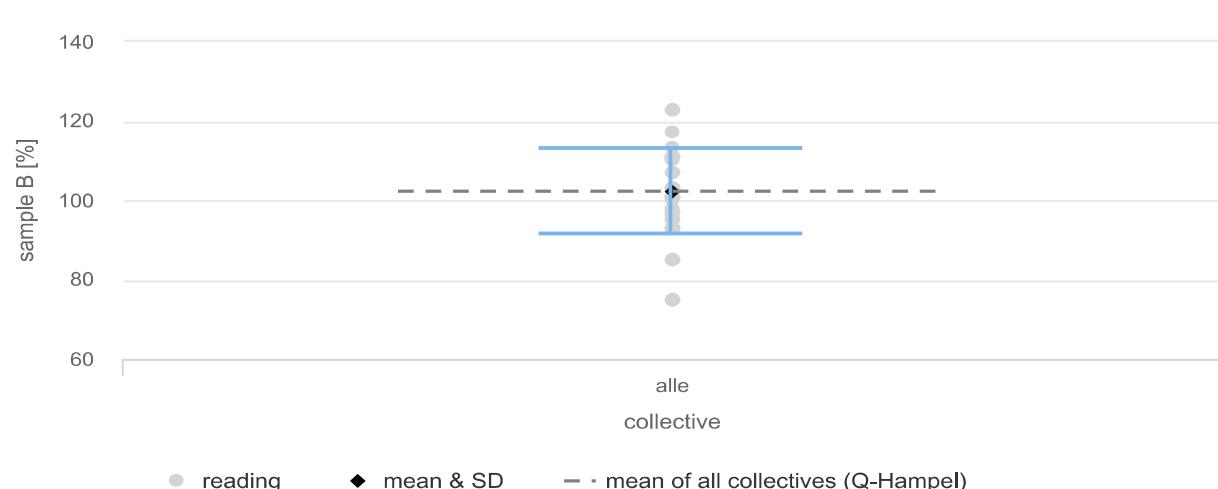
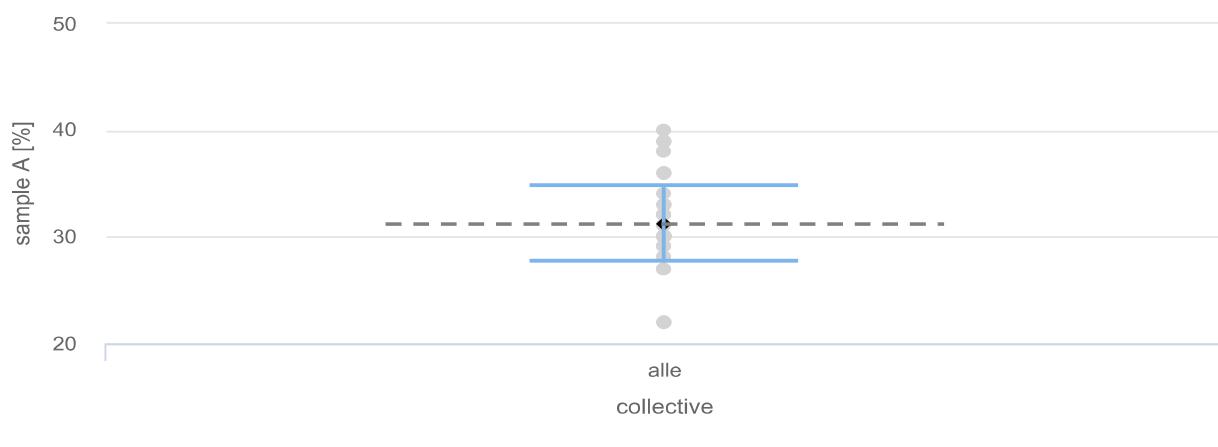


Factor IX %

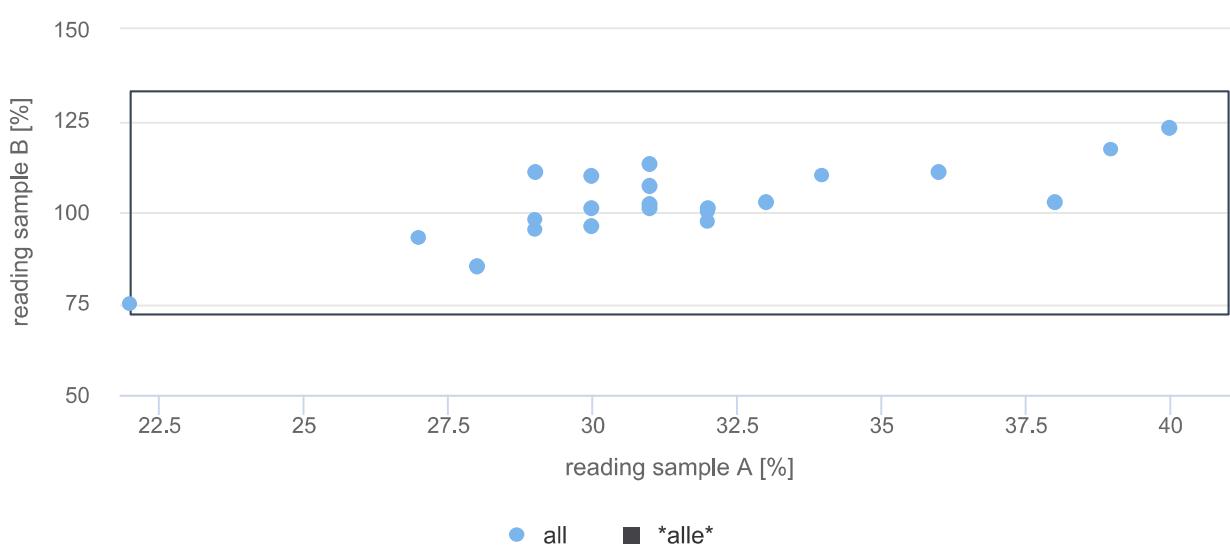
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|---------|-------|------------|--------------|----------|-----|--------|----|-------|
| alle | A | 23 | 31 [b] | 30 | [22...41] | 23 (100%) | 0 (0%) | 31 | 31 | 3 | 11.21 |
| | B | 23 | 102 [b] | 30 | [72...133] | 23 (100%) | 0 (0%) | 102 | 101 | 11 | 10.42 |

S-Curves of all samples



Youden-Plots of all sample pairs

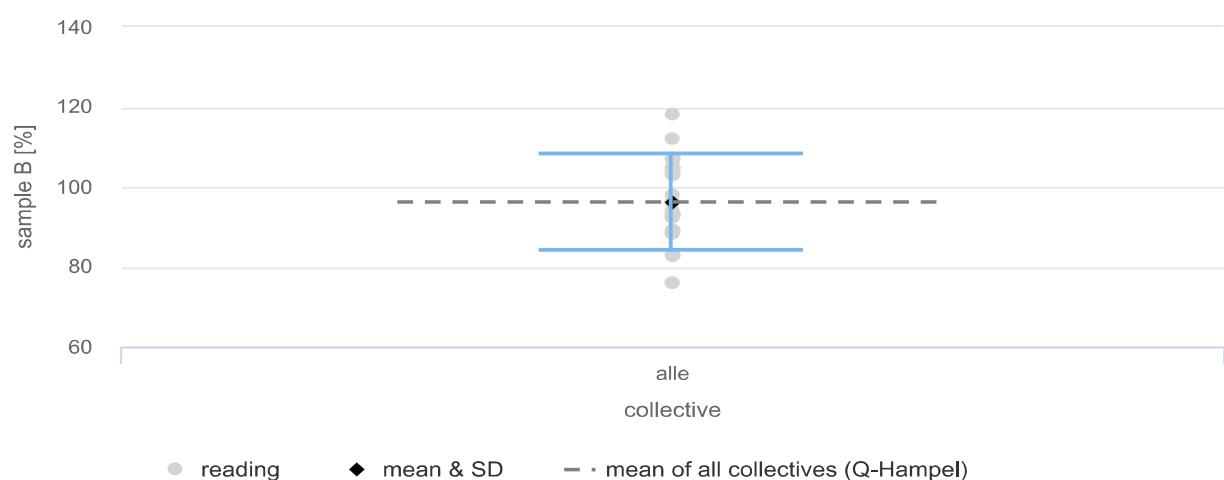
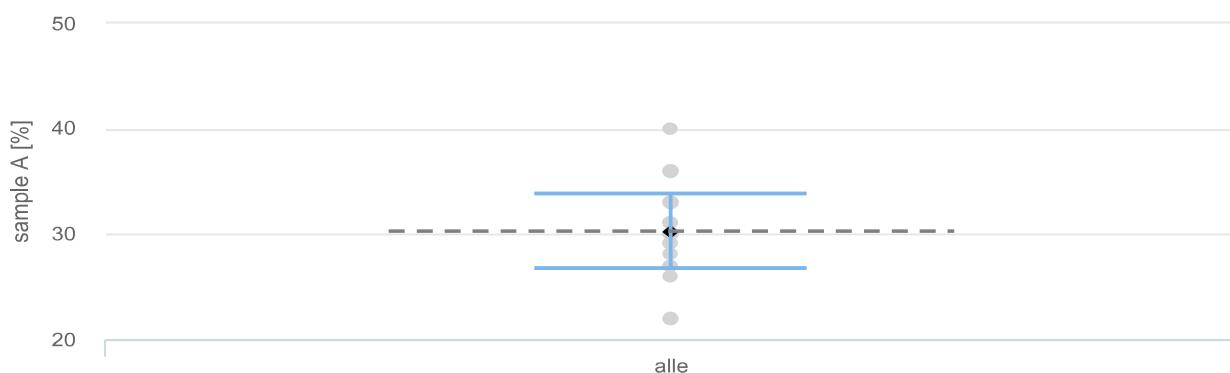


Factor XI %

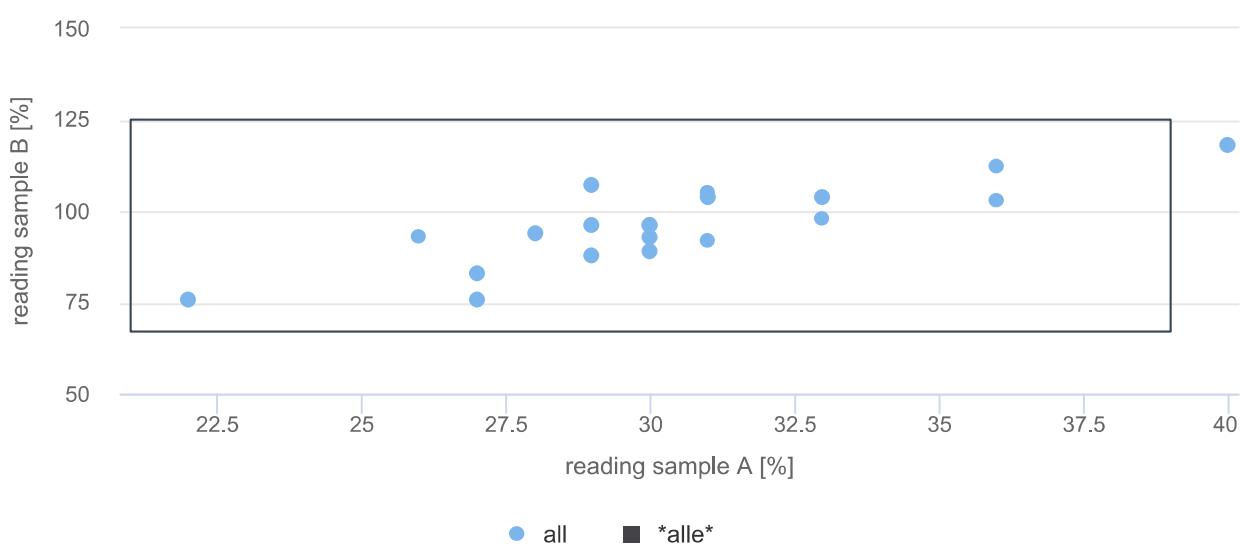
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|--------|-------|------------|--------------|----------|----|--------|----|-------|
| alle | A | 20 | 30 [b] | 30 | [21...39] | 19 (95%) | 1 (5%) | 30 | 30 | 4 | 11.69 |
| | B | 20 | 96 [b] | 30 | [67...125] | 20 (100%) | 0 (0%) | 96 | 96 | 12 | 12.60 |

S-Curves of all samples



Youden-Plots of all sample pairs

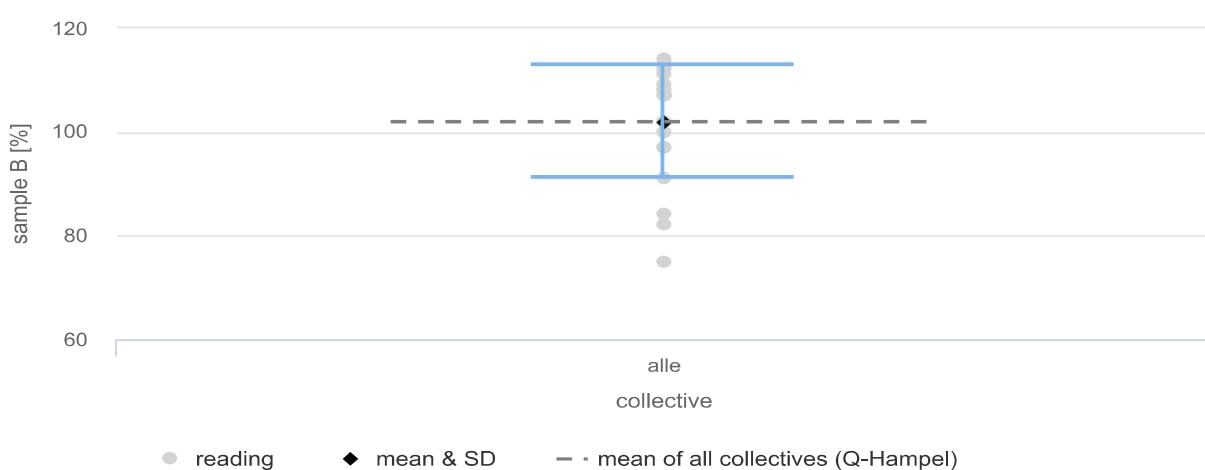
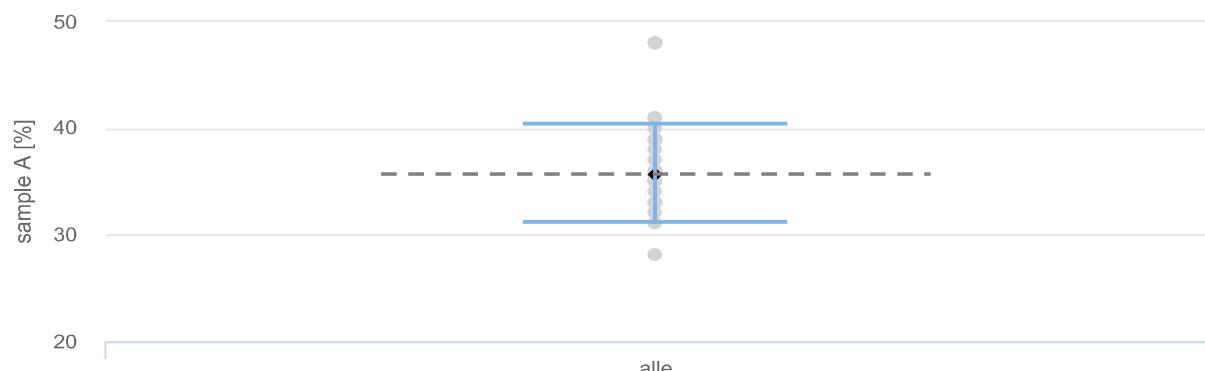


Factor XII %

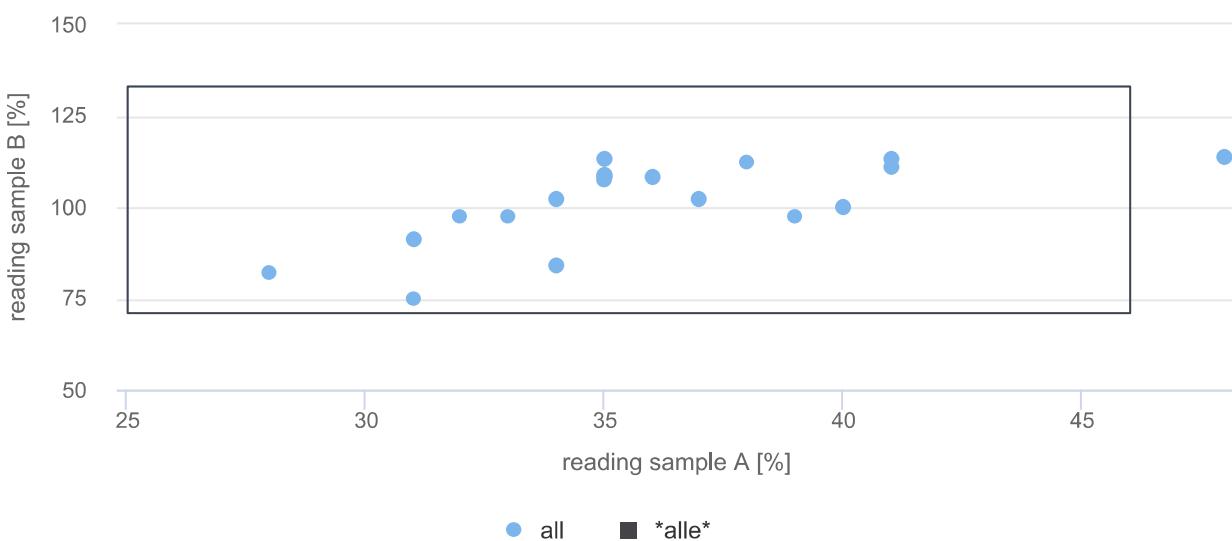
Split: Methode

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|------------|--------|------|---------|-------|------------|--------------|----------|-----|--------|----|-------|
| alle | A | 19 | 36 [b] | 30 | [25...46] | 18 (95%) | 1 (5%) | 36 | 35 | 5 | 12.81 |
| | B | 19 | 102 [b] | 30 | [71...133] | 19 (100%) | 0 (0%) | 102 | 102 | 11 | 10.63 |

S-Curves of all samples



Youden-Plots of all sample pairs

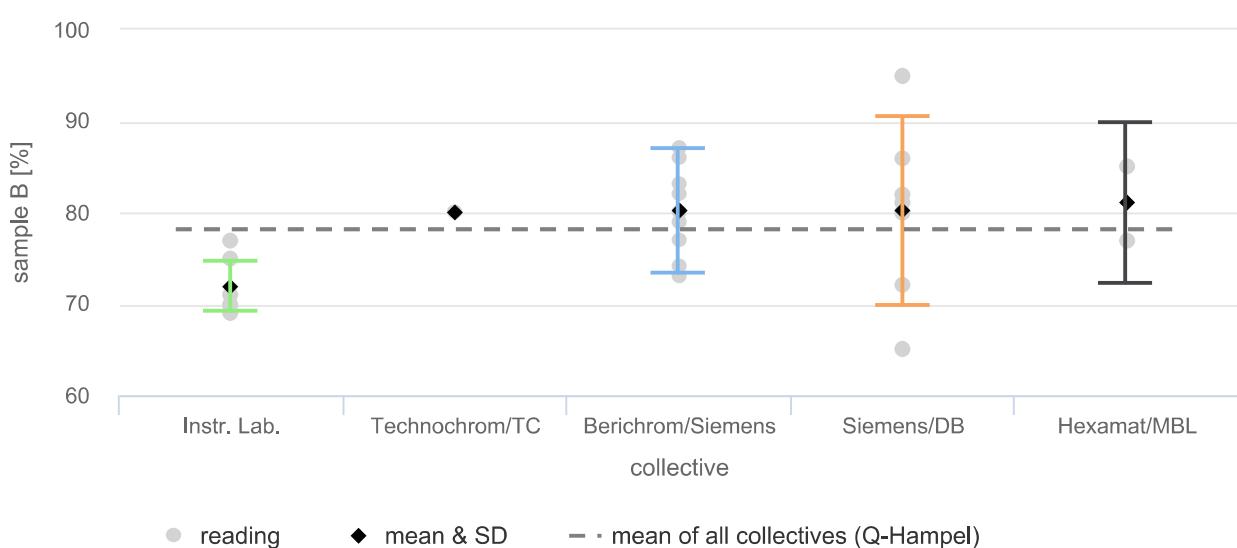
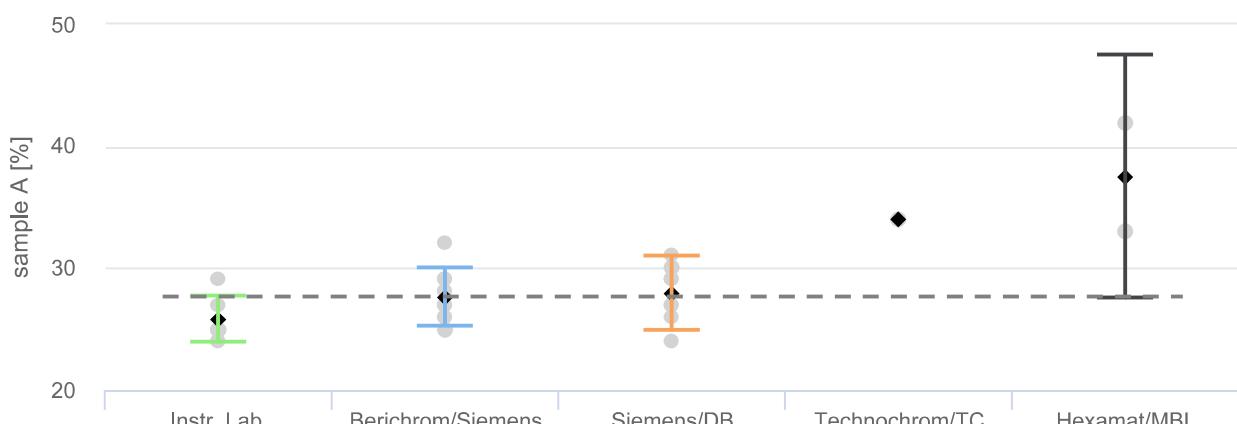


Factor XIII %

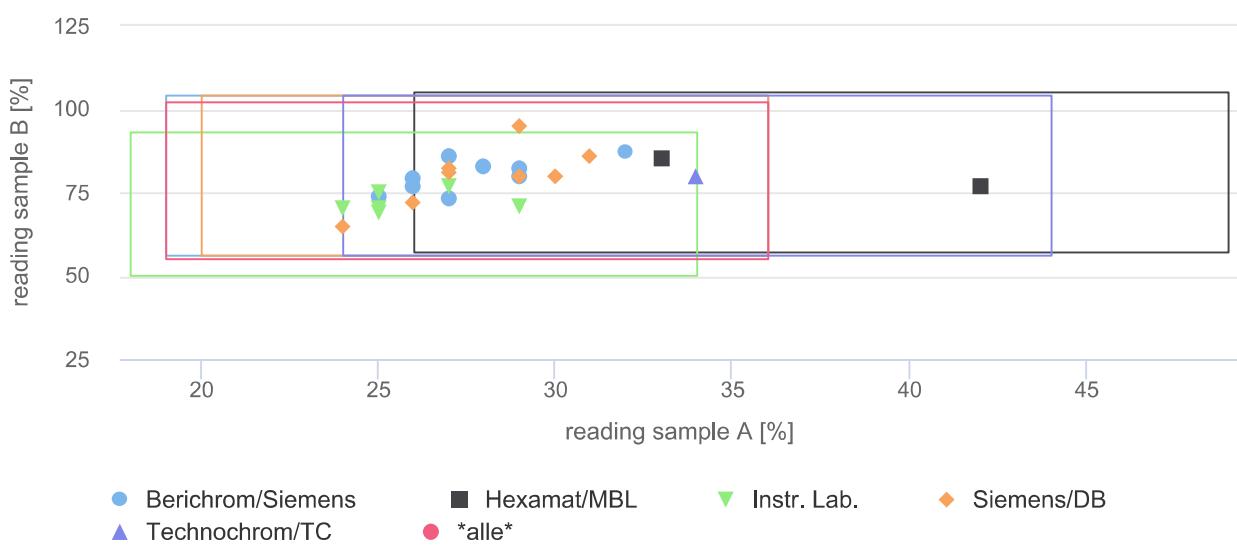
Split: Reagens

| Collective | Sample | AnzE | Target | %-Abw | limits | correct | outliers | MW | Median | SD | CV % |
|-------------------|--------|------|---------|-------|-------------|--------------|----------|-----|--------|-----|--------|
| *all* | A | 26 | 28 [b] | 30 | [19...36] | 25 (96%) | 1 (4%) | 28 | 27 | 3 | 11.18 |
| | B | 26 | 78 [b] | 30 | [55...102] | 26 (100%) | 0 (0%) | 78 | 80 | 7 | 9.22 |
| | | | | | | | | | | | |
| Berichrom/Siemens | A | 9 | 28 [b] | 30 | [19...36] | 9 (100%) | 0 (0%) | 28 | 27 | 2 | 8.68 |
| | B | 9 | 80 [b] | 30 | [56...104] | 9 (100%) | 0 (0%) | 80 | 80 | 7 | 8.62 |
| | | | | | | | | | | | |
| Hexamat/MBL | A | 2 | 38 [b]* | 30* | [26...49]* | 2 (100%)* | 0 (0%)* | 38* | 38* | 10* | 26.63* |
| | B | 2 | 81 [b]* | 30* | [57...105]* | 2 (100%)* | 0 (0%)* | 81* | 81* | 9* | 10.96* |
| | | | | | | | | | | | |
| Instr. Lab. | A | 6 | 26 [b] | 30 | [18...34] | 6 (100%) | 0 (0%) | 26 | 25 | 2 | 7.47 |
| | B | 6 | 72 [b] | 30 | [50...93] | 6 (100%) | 0 (0%) | 72 | 71 | 3 | 3.83 |
| | | | | | | | | | | | |
| Siemens/DB | A | 8 | 28 [b] | 30 | [20...36] | 8 (100%) | 0 (0%) | 28 | 28 | 3 | 10.84 |
| | B | 8 | 80 [b] | 30 | [56...104] | 8 (100%) | 0 (0%) | 80 | 81 | 10 | 12.87 |
| | | | | | | | | | | | |
| Technochrom/TC | A | 1 | 34 [b]* | 30* | [24...44]* | 1 (100%)* | 0 (0%)* | 34* | 34* | -* | -* |
| | B | 1 | 80 [b]* | 30* | [56...104]* | 1 (100%)* | 0 (0%)* | 80* | 80* | -* | -* |

S-Curves of all samples



Youden-Plots of all sample pairs



Category (Collectives)

Thromboplastin time (quick) %

| Number | Collective | Attribute | Specification |
|--------|----------------------------|-----------|--|
| 1 | Cube-S/***** | Method | Cube-S/***** |
| | | | |
| | | | |
| 2 | Innovin-Multi-Kal./recomb. | Method | Innovin-Multi-Kal./recomb. |
| | | | |
| | | | |
| 3 | Innovin/recomb. | Method | Innovin/recomb. |
| | | | |
| | | | |
| 4 | Neoplastine | Method | Neopl.-Plus/rabbit Neoplastine CI +/rabbit STA NEOPLASTIN CI +/rabbit STA NEOPLASTIN R/recomb. |
| | | | |
| | | | |
| 5 | PT Rec/human | Method | PT Rec/human |
| | | | |
| | | | |
| 6 | PT Screen/human | Method | PT Screen/human |
| | | | |
| | | | |
| 7 | PT-Dimex jr./bovine+ | Method | PT-Dimex jr./bovine+ |
| | | | |
| | | | |
| 8 | ReadiPlasTin/recomb. | Method | ReadiPlasTin/recomb. |
| | | | |
| | | | |
| 9 | RecombiPlasTin 2G/recomb. | Method | RecombiPlasTin 2G/recomb. |
| | | | |
| | | | |
| 10 | STA HEPATO-PREST | Method | STA HEPATO-PREST / rabbit STA HEPATO-PREST-VB/rabbit |
| | | | |
| | | | |
| 11 | STA-NeoPTimal/rabbit | Method | STA PTF/rabbit STA-NeoPTimal/rabbit Technoplastin HIS/rabbit |
| | | | |
| | | | |
| 12 | Smart 700/***** | Method | Smart 700/***** |
| | | | |
| | | | |
| 13 | Smart 700/340/***** | Method | Smart 700/340/***** |
| | | | |
| | | | |
| 14 | Technoclot PT Owren | Method | Technoclot PT Owren autom./rabbit Technoclot PT Owren man.-KB/rabbit Technoclot PT Owren man.-P/rabbit |
| | | | |
| | | | |
| 15 | Thromborel S | Method | Thromborel S-Multi-Kal./human Thromborel S/human |

INR

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|--|
| 1 | bovine | Method | Cube-S/***** PT-Dimex jr./bovine+ Smart 700/***** Smart 700/340/***** |
| 2 | human | Method | PT Rec/human PT Screen/human Thromborel S-Multi-Kal./human |

| | | | |
|---|-------------|--------|--|
| | | | Thromborel S/human |
| | | | |
| | | | |
| 3 | rabbit | Method | Neopl.-Plus/rabbit Neoplastine Cl +/rabbit STA HEPATO-PREST / rabbit STA HEPATO-PREST-VB/rabbit STA NEOPLASTIN Cl +/rabbit STA PTF/rabbit STA-NeoPTimal/rabbit Technoclot PT Owren autom./rabbit Technoclot PT Owren man.-KB/rabbit Technoclot PT Owren man.-P/rabbit Technoplastin HIS/rabbit |
| | | | |
| | | | |
| 4 | recombinant | Method | Innovin-Multi-Kal./recomb. Innovin/recomb. ReadiPlasTin/recomb. RecombiPlasTin 2G/recomb. STA NEOPLASTIN R/recomb. |

Partielle Thromboplastinzeit (aPTT) sec

| Number | Collective | Attribute | Specification |
|--------|------------------|-----------|---|
| 1 | Actin FS | Method | Actin FS |
| | | | |
| | | | |
| 2 | Actin andere | Method | Actin Actin FSL |
| | | | |
| | | | |
| 3 | Dapttin | Method | Dapttin |
| | | | |
| | | | |
| 4 | Pathromtin SL | Method | Pathromtin SL |
| | | | |
| | | | |
| 5 | STA CEPHASCREEN | Method | STA CEPHASCREEN |
| | | | |
| | | | |
| 6 | STA PTT Automate | Method | Cephalin LT CK PREST PTT Automate STA APTT (Ceph.-akt) STA CK PREST STA PTT Automate |
| | | | |
| | | | |
| 7 | SynthASIL | Method | aPTT SP SynthASIL |
| | | | |
| | | | |
| 8 | aPTT | Method | aPTT MedS aPTT Screen |

Thrombinzeit sec

| Number | Collective | Attribute | Specification |
|--------|----------------|-----------|---|
| 1 | IL | Method | Thr < 2,0/Instr. Lab. Thr > 3,0/Instr. Lab. |
| | | | |
| | | | |
| 2 | Siemens andere | Method | Thr < 0,51/Test-Thr. Siemens Thr < 1,0/Test-Thr. Siemens Thr < 2,0/Test-Thr. Siemens Thr > 2,0/Test-Thr. Siemens |
| | | | |
| | | | |
| 3 | Stago | Method | Thr < 1,0/Stago Thr < 2,0/Stago |

| | | | |
|---|-------------------------|--------|-------------------------|
| | | | Thr < 2,0/TC |
| | | | |
| | | | |
| 4 | Thr < 1,0/BC-Thrombin | Method | Thr < 1,0/BC-Thrombin |
| | | | |
| | | | |
| 5 | Thr < 1,0/Thromboclotin | Method | Thr < 1,0/Thromboclotin |

Fibrinogen mg/dl

| Number | Collective | Attribute | Specification |
|--------|-------------|-----------|--------------------------------------|
| 1 | IL | Reagent | Instr. Lab./Elite Instr. Lab./TOP |
| | | | |
| | | | |
| 2 | Roche | Reagent | Roche Roche/BM |
| | | | |
| | | | |
| 3 | Siemens/D | Reagent | Siemens/D |
| | | | |
| | | | |
| 4 | Siemens/DB | Reagent | Siemens/DB |
| | | | |
| | | | |
| 5 | Stago | Reagent | Stago |
| | | | |
| | | | |
| 6 | Technoclone | Reagent | Technoclone |

Fibrinogen derived mg/dl

| Number | Collective | Attribute | Specification |
|--------|-------------------------------|-----------|-------------------------------|
| 1 | Innovin/recomb. | Method | Innovin/recomb. |
| | | | |
| | | | |
| 2 | RecombiPlasTin 2G/recomb. | Method | RecombiPlasTin 2G/recomb. |
| | | | |
| | | | |
| 3 | Thromborel S-Multi-Kal./human | Method | Thromborel S-Multi-Kal./human |

Antithrombin III %

| Number | Collective | Attribute | Specification |
|--------|-------------|-----------|--|
| 1 | IL | Reagent | Instr. Lab./TOP |
| | | | |
| | | | |
| 2 | Roche | Reagent | Roche Roche/BM |
| | | | |
| | | | |
| 3 | Siemens | Reagent | Berichrom/Siemens Innovance/Siemens Siemens/DB |
| | | | |
| | | | |
| 4 | Stago | Reagent | Stago |
| | | | |
| | | | |
| 5 | Technoclone | Reagent | Technoclone |

Factor II %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|--|
| 1 | alle | Method | Innovin/recomb. ReadiPlasTin/recomb. RecombiPlasTin 2G/recomb. STA NEOPLASTIN CI +/rabbit STA NEOPLASTIN R/recomb. Technoplastin HIS/rabbit |

| | | |
|--|--|--------------------|
| | | Thromborel S/human |
|--|--|--------------------|

Factor V %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|--|
| 1 | alle | Method | Innovin/recomb. ReadiPlasTin/recomb. RecombiPlasTin 2G/recomb. STA NEOPLASTIN Cl +/rabbit STA NEOPLASTIN R/recomb. Technoplastin HIS/rabbit Thromborel S/human |

Factor VII %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|--|
| 1 | alle | Method | Innovin/recomb. ReadiPlasTin/recomb. RecombiPlasTin 2G/recomb. STA NEOPLASTIN Cl +/rabbit STA NEOPLASTIN R/recomb. Technoplastin HIS/rabbit Thromborel S/human |

Factor X %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|--|
| 1 | alle | Method | Innovin/recomb. ReadiPlasTin/recomb. RecombiPlasTin 2G/recomb. STA NEOPLASTIN Cl +/rabbit STA NEOPLASTIN R/recomb. Technoplastin HIS/rabbit Thromborel S/human |

Factor VIII %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|---|
| 1 | alle | Method | Actin Actin FS Actin FSL Chrom./Siemens Chrom.Substr. Kaolin Pathromtin SL SIRON LS STA CK PREST SynthASIL |

Factor IX %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|---|
| 1 | alle | Method | Actin Actin FS Actin FSL Chrom.Substr. Pathromtin SL SIRON LS STA CK PREST SynthASIL |

Factor XI %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|---|
| 1 | alle | Method | Actin Actin FS Pathromtin SL SIRON LS STA CK PREST SynthASIL |

Factor XII %

| Number | Collective | Attribute | Specification |
|--------|------------|-----------|--|
| 1 | alle | Method | Actin Actin FS Pathromtin SL SIRON LS STA CEPHASCREEN STA CK PREST SynthASIL |

Factor XIII %

| Number | Collective | Attribute | Specification |
|--------|-------------------|-----------|-------------------|
| 1 | Berichrom/Siemens | Reagent | Berichrom/Siemens |
| | | | |
| | | | |
| 2 | Hexamat/MBL | Reagent | Hexamat/MBL |
| | | | |
| | | | |
| 3 | Instr. Lab. | Reagent | Instr. Lab. |
| | | | |
| | | | |
| 4 | Siemens/DB | Reagent | Siemens/DB |
| | | | |
| | | | |
| 5 | Technochrom/TC | Reagent | Technochrom/TC |

With best regards

Dr. Christoph Buchta, MBA
Technical Management

Prim. Univ. Doz. Dr. Alexander Haushofer
EQA Scheme Director