

Individual Report**QCMD 2021 Human Papillomavirus (PreservCyt) EQA Programme**

| | | | | | | |
|-------------------------------------|-------------------------------|------------------------|---------------------------------|----------------------|--------------------------------|------------------------|
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |
|-------------------------------------|-------------------------------|------------------------|---------------------------------|----------------------|--------------------------------|------------------------|

NOTE: Summary information only.

Intended Results / Panel Composition

| Sample Code | Sample Content | Matrix | Sample Relationships ^[1] | Detection Frequency ^[2] | Sample Status ^[3] | Percentage Correct (All) ^[4] | |
|---------------|----------------|-----------------|-------------------------------------|------------------------------------|------------------------------|---|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-01 | HPV45 (CC10b) | PreservCyt +BSM | D3 | Detected | CORE | 94.7 | 151 |
| HPVPRES21S-02 | Negative | PreservCyt +BSM | | Negative | CORE | 96.7 | 151 |
| HPVPRES21S-03 | HPV18 (Hela) | PreservCyt +BSM | D1, DS1_2 | Frequently Detected | CORE | 98.7 | 151 |
| HPVPRES21S-04 | HPV16 (Caski) | PreservCyt +BSM | DS2_3 | Detected | CORE | 93.4 | 151 |
| HPVPRES21S-05 | HPV16 (Caski) | PreservCyt +BSM | D2, DS2_2 | Frequently Detected | CORE | 99.3 | 151 |
| HPVPRES21S-06 | HPV45 (CC10b) | PreservCyt +BSM | D3 | Frequently Detected | CORE | 96.0 | 151 |
| HPVPRES21S-07 | HPV18 (Hela) | PreservCyt +BSM | D1, DS1_2 | Frequently Detected | CORE | 99.3 | 151 |
| HPVPRES21S-08 | HPV16 (Caski) | PreservCyt +BSM | DS2_2, D2 | Frequently Detected | CORE | 99.3 | 151 |
| HPVPRES21S-09 | Negative | PreservCyt +BSM | | Negative | CORE | 94.0 | 151 |
| HPVPRES21S-10 | HPV16 (Caski) | PreservCyt +BSM | DS2_1 | Frequently Detected | CORE | 98.0 | 151 |
| HPVPRES21S-11 | HPV18 (Hela) | PreservCyt +BSM | DS1_3 | Frequently Detected | CORE | 96.7 | 151 |
| HPVPRES21S-12 | HPV18 (Hela) | PreservCyt +BSM | DS1_1 | Frequently Detected | CORE | 99.3 | 151 |

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|--|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcvt) EQA Programme | | | |  <small>Quality Control for Molecular Diagnostics</small> | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

[1] **Sample Relationships:** Indicates the relationships of the samples within this challenge. The highest titre member of dilution series DS1 is indicated by DS1_1 and further members of the series as DS1_2, DS1_3 etc. in order of reducing titre. Additional dilution series are indicated by DS2 (e.g DS2_1, DS2_2 etc.), DS3 (e.g. DS3_1, DS3_2 etc.). If one duplicate pair is present this is indicated by 'D1'. Further duplicate pairs are indicated by 'D2', 'D3' etc.

[2] **Detection Frequency:** To aid qualitative analysis each panel member is assigned a frequency of detection. This is based on the peer group consensus of all qualitative results returned from participants within the EQA challenge / distribution.

[3] **Sample Status:** EQA samples are defined as "CORE" or "EDUCATIONAL". Core proficiency samples are reviewed by the QCMD Scientific Expert(s). This is on the basis of scientific information, clinical relevance, current literature and, where appropriate, professional clinical guidelines. Participating laboratories are expected to report core proficiency samples correctly within the EQA challenge / distribution.

[4] **Percentage Correct (All):** Percentage of datasets (%) reporting the correct qualitative result and the total number of datasets (n) reported for each panel member.

For further details please refer to the current participant manual.

Your Summary Results

| | |
|--|-----|
| EQA Assessment Group ^[1] | N/A |
| Core Panel Detection (Qualitative) Score ^[2] | N/A |

Core Panel Members Results

| Sample Code | Qualitative Results | | | Your Quantitative Data (for information only) ^[3] | | |
|---------------|---|----------------------------|--------------------------------|--|---------|-----------------|
| | Percentage Correct (All) ^[4] | Your Result ^[5] | Detection Score ^[6] | Reported Value | Unitage | Cycle Threshold |
| HPVPRES21S-01 | 94.7 | - | - | - | - | - |
| HPVPRES21S-02 | 96.7 | - | - | - | - | - |
| HPVPRES21S-03 | 98.7 | - | - | - | - | - |
| HPVPRES21S-04 | 93.4 | - | - | - | - | - |
| HPVPRES21S-05 | 99.3 | - | - | - | - | - |
| HPVPRES21S-06 | 96.0 | - | - | - | - | - |
| HPVPRES21S-07 | 99.3 | - | - | - | - | - |
| HPVPRES21S-08 | 99.3 | - | - | - | - | - |
| HPVPRES21S-09 | 94.0 | - | - | - | - | - |
| HPVPRES21S-10 | 98.0 | - | - | - | - | - |
| HPVPRES21S-11 | 96.7 | - | - | - | - | - |
| HPVPRES21S-12 | 99.3 | - | - | - | - | - |

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|---|-------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcvt) EQA Programme | | | |  QCMD Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory: - |

[1] **EQA Assessment Group:** To aid data analysis, participant results are grouped according to the molecular amplification/detection method specified within their molecular workflow for this challenge / distribution. For further details refer to the *Additional Information: Individual Panel Member Analysis* section of this report.

[2] **Core Panel Detection (Qualitative) Score:** An overall core panel detection score provided per challenge / distribution.

[3] **Quantitative Data (for information only):** This is the quantitative value, unitage and cycle threshold you provided when you submitted your results. For qualitative programmes this information is not used as part of your formal EQA assessment.

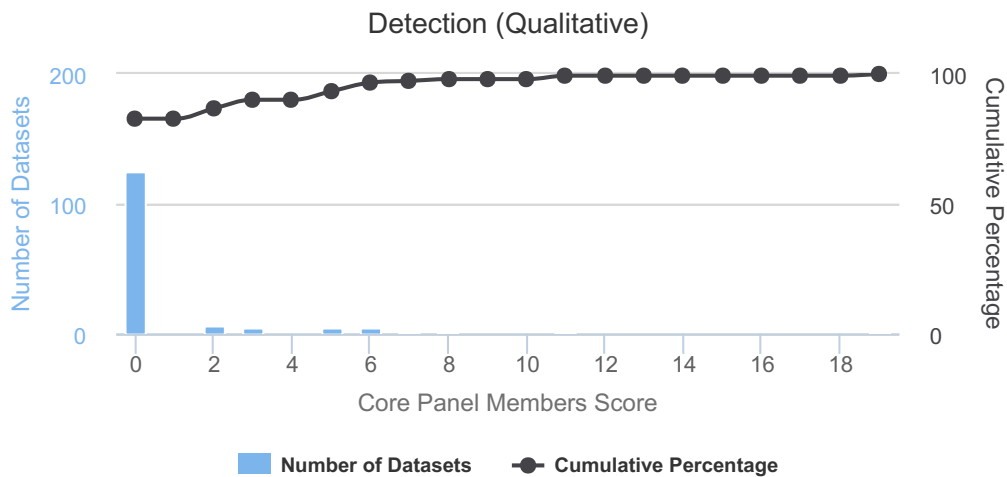
[4] **Percentage Correct (All):** Percentage of datasets (%) reporting the correct qualitative results for each panel member.

[5] **Your Result:** The qualitative result you reported for each sample within this EQA challenge / distribution.

[6] **Detection Score:** Your detection (qualitative) scores are based on the assigned detection frequency of each panel members, where 0 (zero) is "highly satisfactory" and 3 (three) is "highly unsatisfactory". Scores are provided for individual panel members.

For further details please refer to the current participant manual.

Core Panel Member Score Breakdown



Core Panel Member Score Breakdown - Detection: This figure gives you a breakdown of the qualitative detection scores for all qualitative datasets returned within this EQA challenge / distribution independent of the EQA assessment group. Panel detection scores are generated from only those panel members that are defined as "CORE".

For further details please refer to the current participant manual.

Further Programme Details

| | |
|------------------------------|--------------|
| Number of Participants | 152 |
| Number of Countries | 33 |
| Number of Respondents | 130 |
| Number of Datasets Submitted | 151 |
| Qualitative Results Returned | 151 (100.0%) |

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|--|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

EQA Programme Aims

To assess the proficiency of laboratories in the detection of different high risk Human Papillomavirus types with a PreservCyt matrix.

Feedback and Enquiries

Participants are encouraged to read the QCMD Participants' Manual, which can be downloaded from the QCMD website.

Any enquiries should be submitted through the 'Contact Us' form that you can find in the 'Help' section of your QCMD (ITEMS) Participant Profile Area.

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|--|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  <small>Quality Control for Molecular Diagnostics</small> | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

Panel member analysis is separated into CORE samples followed by EDUCATIONAL samples.

Additional Core Samples Information

The following section has been categorised as shown below:

Core ► Qualitative

Individual Panel Member Analysis (Qualitative)

Qualitative analysis for each panel member is provided in relation to your EQA assessment group. EQA assessment groups are established using the molecular workflow information reported by all participants within this EQA challenge / distribution. The principal level of assessment is at the individual method level which is defined based on your reported “amplification/detection method” and other laboratories using the same or similar amplification/detection methods.

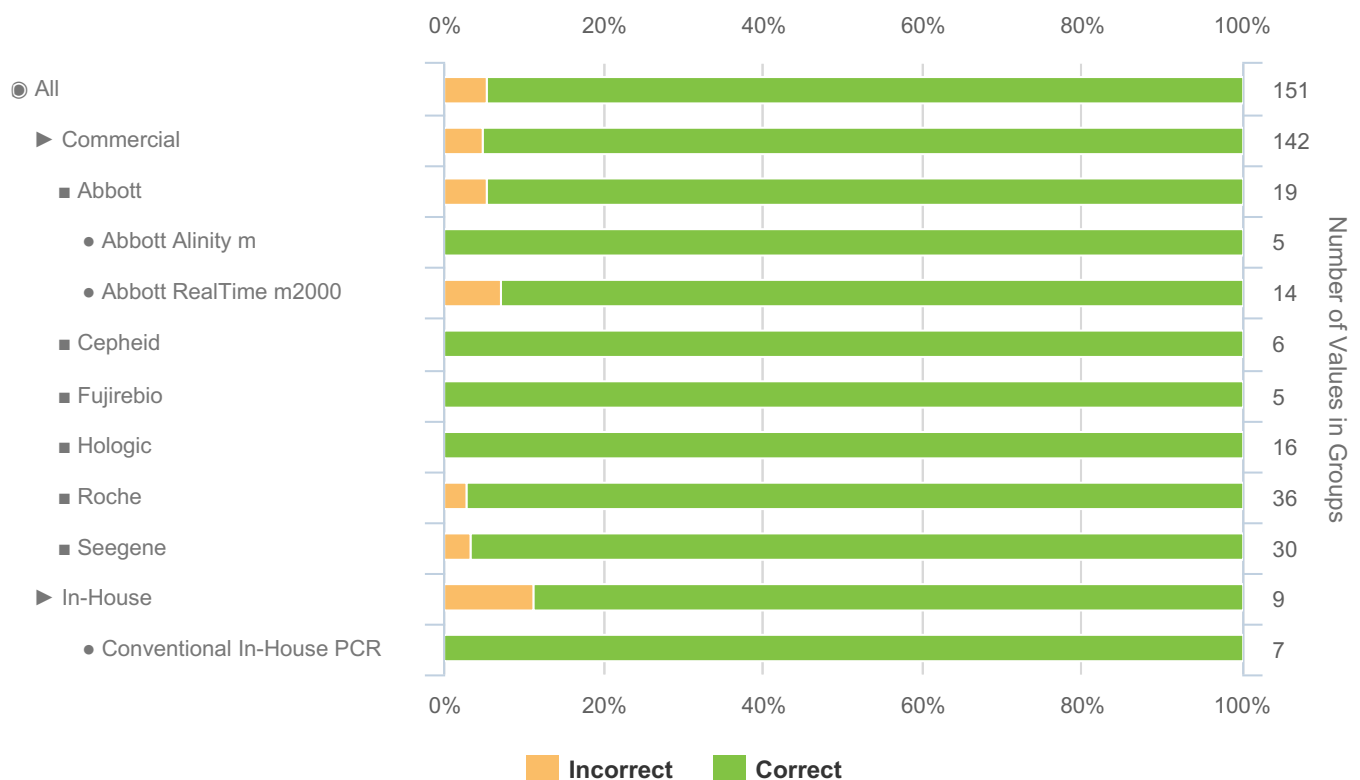
To allow meaningful assessment at the individual method level the EQA assessment group must consist of 5 or more datasets. If there are not sufficient datasets at the individual method level then your results will be included within a higher EQA assessment group based on whether it is a commercial or in house technology/method. The highest level assessment grouping is “All” participant reported qualitative results.

A breakdown of qualitative results reported by participants on each of the panel members within this EQA challenge / distribution is provided below. You can compare your results to those within your EQA assessment group and those obtained within other EQA assessment groups or to the overall consensus for each sample within this EQA challenge / distribution.

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|---|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-01 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-01 | HPV45 (CC10b) | PreservCyt +BSM | D3 | Detected | CORE | 94.7 | 151 |



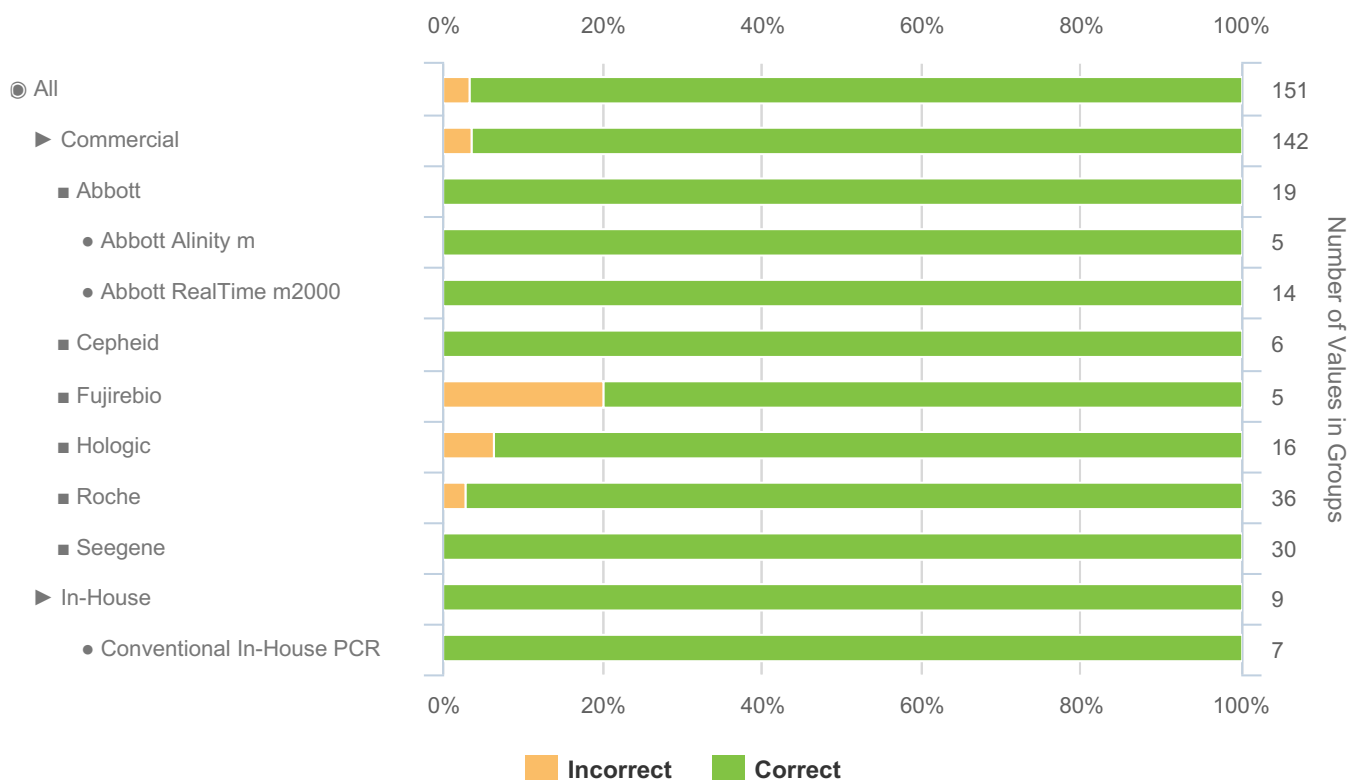
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|--|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  <small>Quality Control for Molecular Diagnostics</small> | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-02 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-02 | Negative | PreservCyt +BSM | | Negative | CORE | 96.7 | 151 |



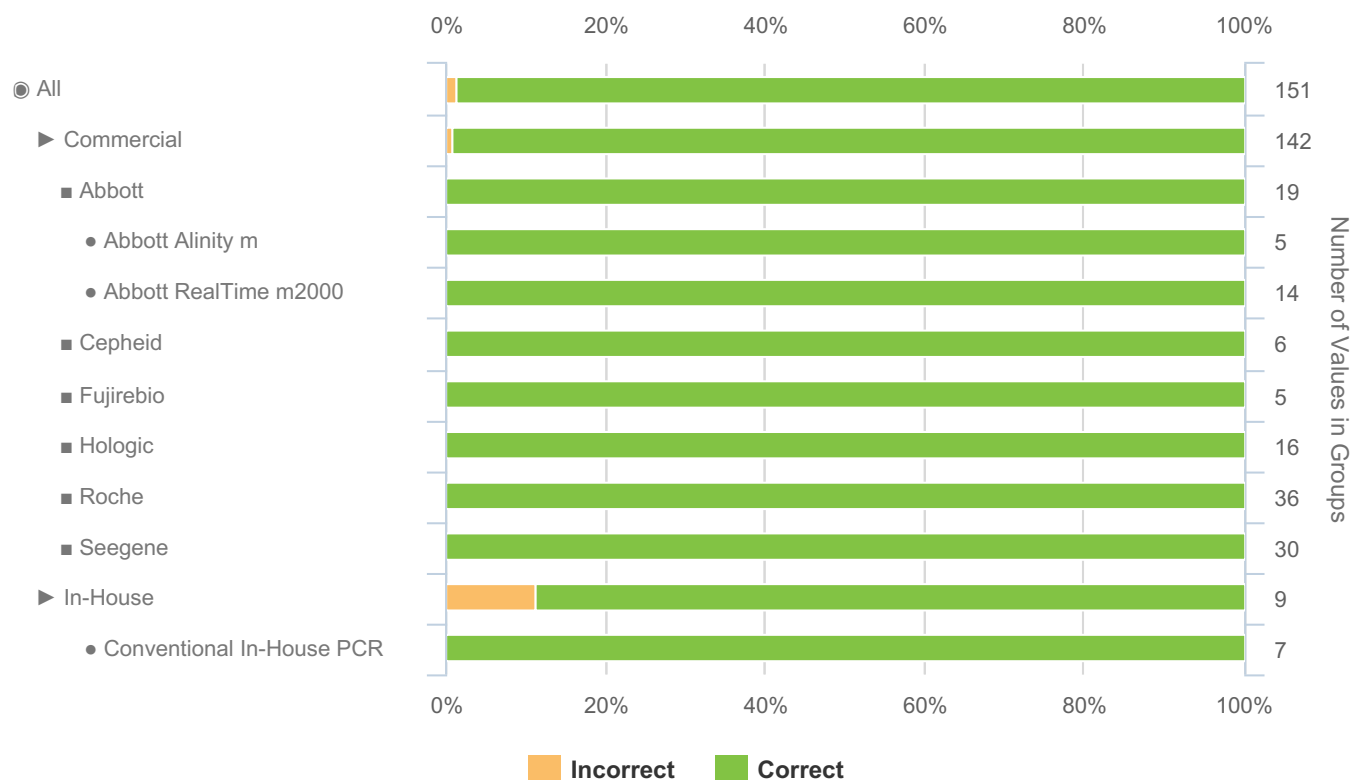
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|---|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-03 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-03 | HPV18 (Hela) | PreservCyt +BSM | D1, DS1_2 | Frequently Detected | CORE | 98.7 | 151 |



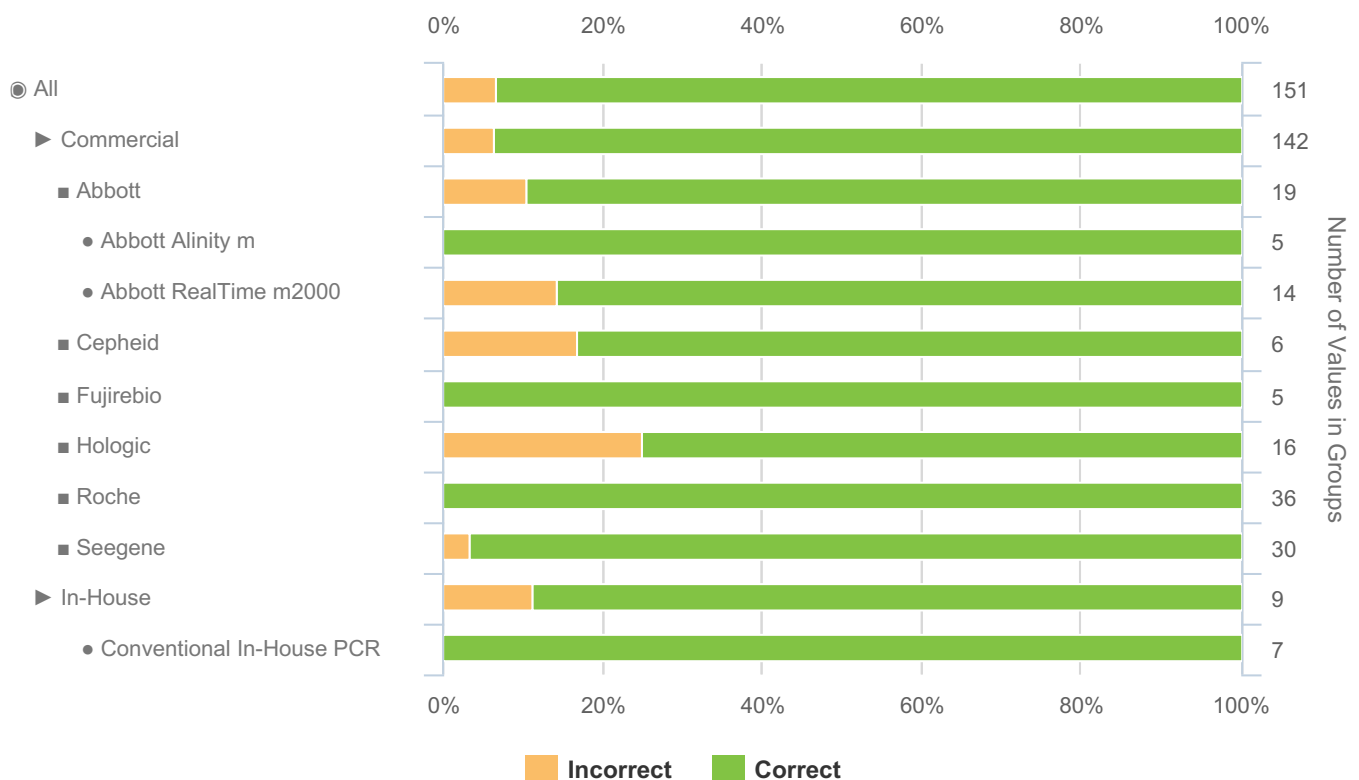
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | | |
|-------------------------------------|-------------------------------|--|---------------------------------|----------------------|--------------------------------|---|--|
| Individual Report | | QCMD 2021 Human Papillomavirus (Preservcvt) EQA Programme | | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - | |

HPVPRES21S-04 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-04 | HPV16 (Caski) | PreservCyt +BSM | DS2_3 | Detected | CORE | 93.4 | 151 |



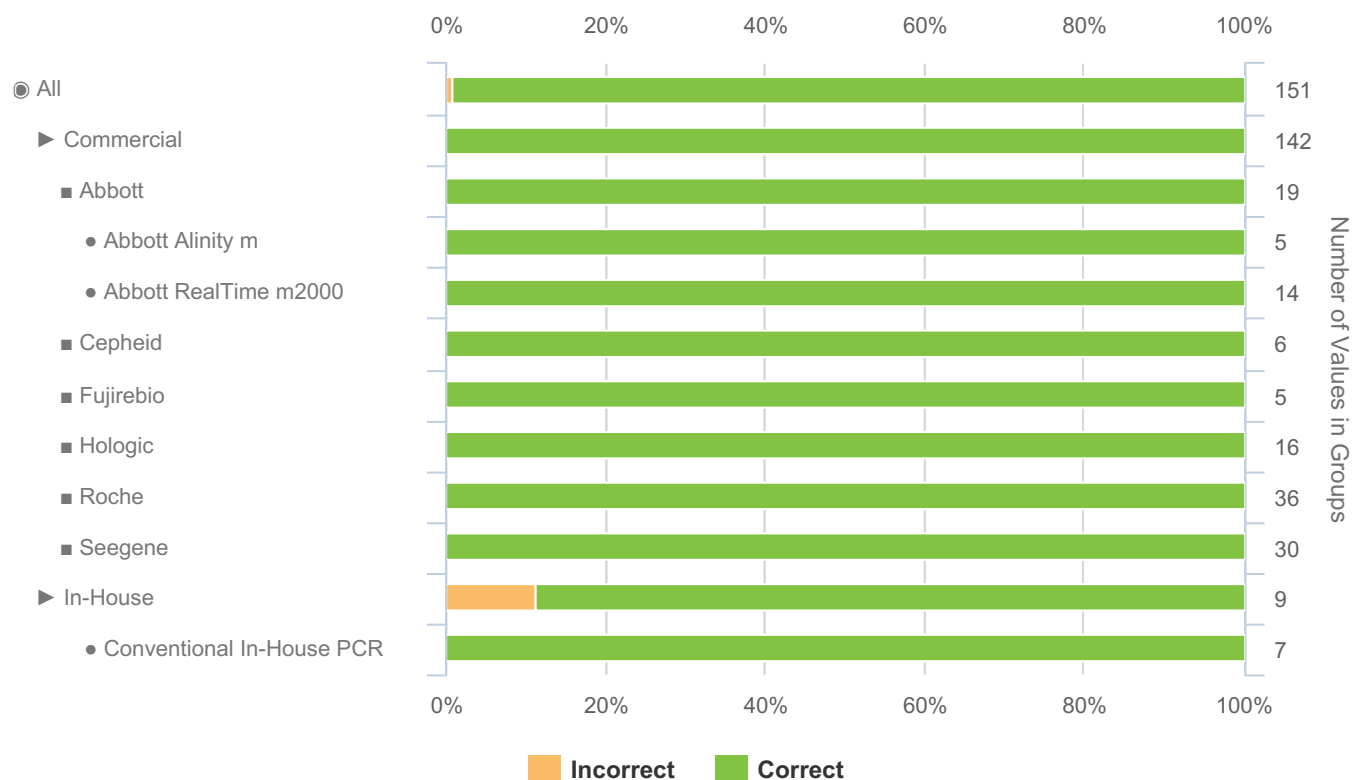
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|---|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcvt) EQA Programme | | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-05 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-05 | HPV16 (Caski) | PreservCyt +BSM | D2, DS2_2 | Frequently Detected | CORE | 99.3 | 151 |



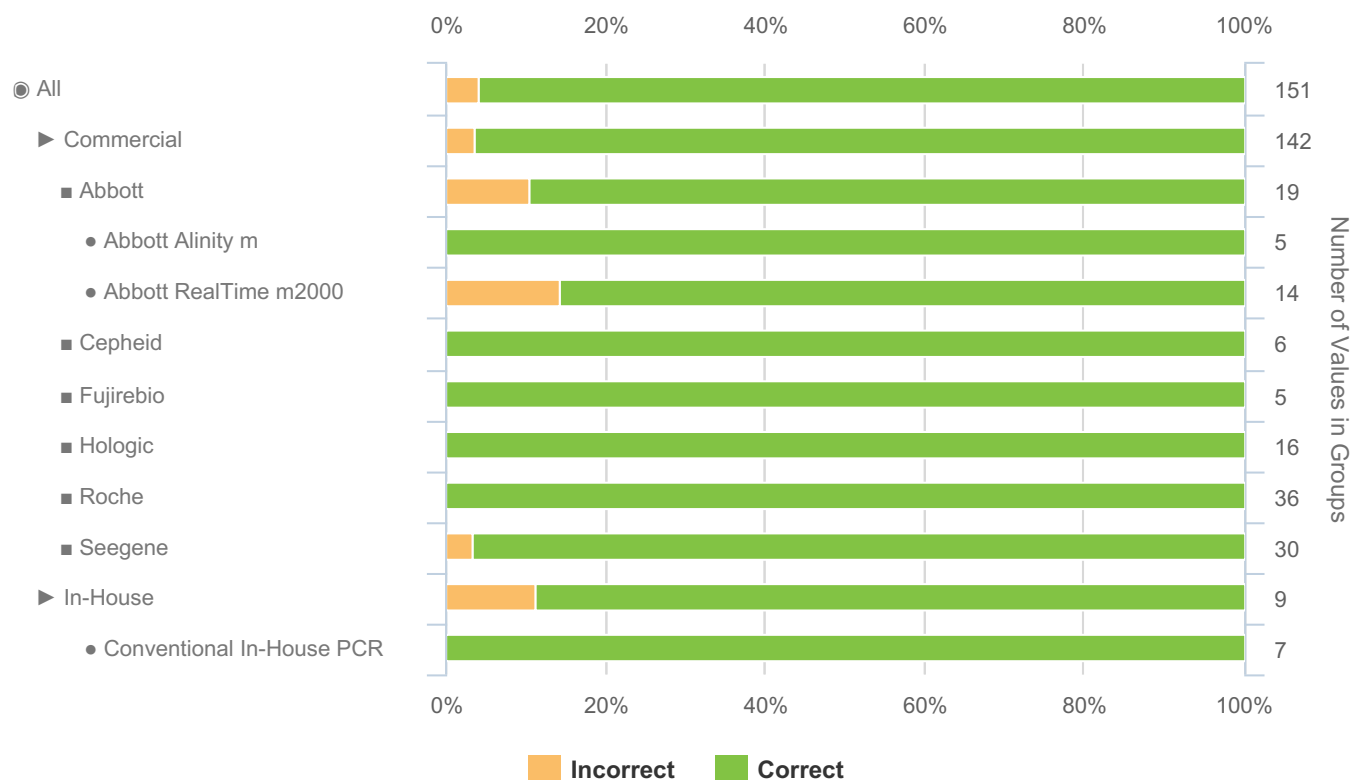
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | | |
|-------------------------------------|-------------------------------|--|---------------------------------|----------------------|--------------------------------|---|--|
| Individual Report | | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - | |

HPVPRES21S-06 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-06 | HPV45 (CC10b) | PreservCyt +BSM | D3 | Frequently Detected | CORE | 96.0 | 151 |



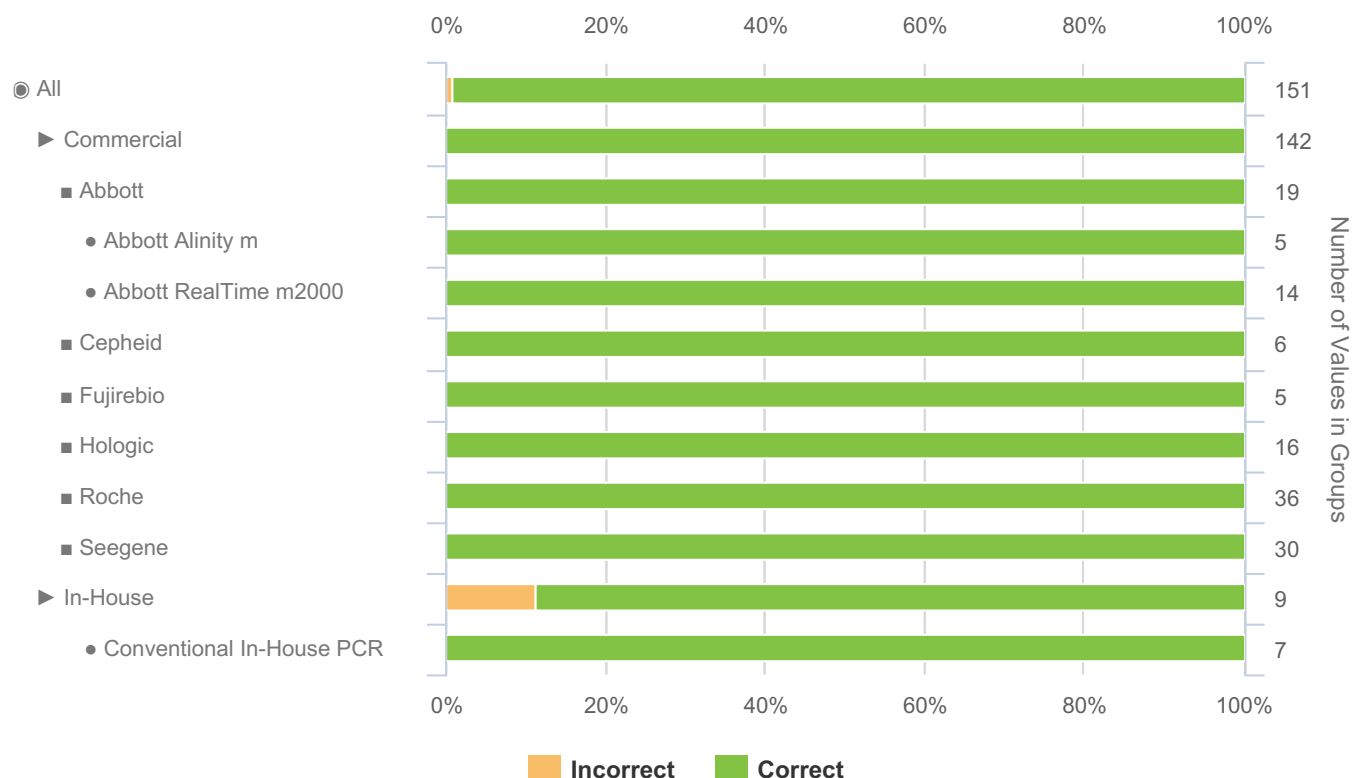
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|-------------------------------|--|---------------------------------|----------------------|---|------------------------|
| Individual Report | | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-07 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-07 | HPV18 (Hela) | PreservCyt +BSM | D1, DS1_2 | Frequently Detected | CORE | 99.3 | 151 |



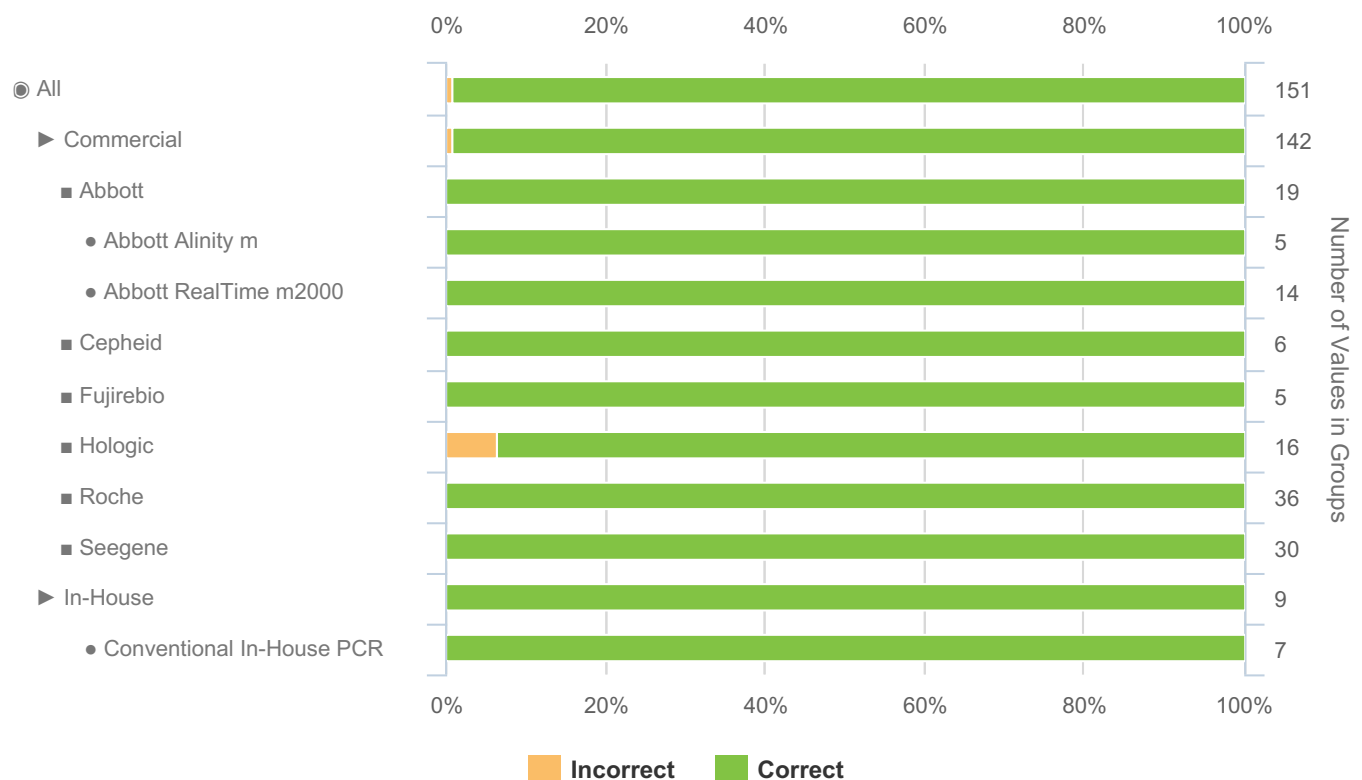
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|-------------------------------|--|---------------------------------|----------------------|---|------------------------|
| Individual Report | | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-08 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-08 | HPV16 (Caski) | PreservCyt +BSM | DS2_2, D2 | Frequently Detected | CORE | 99.3 | 151 |



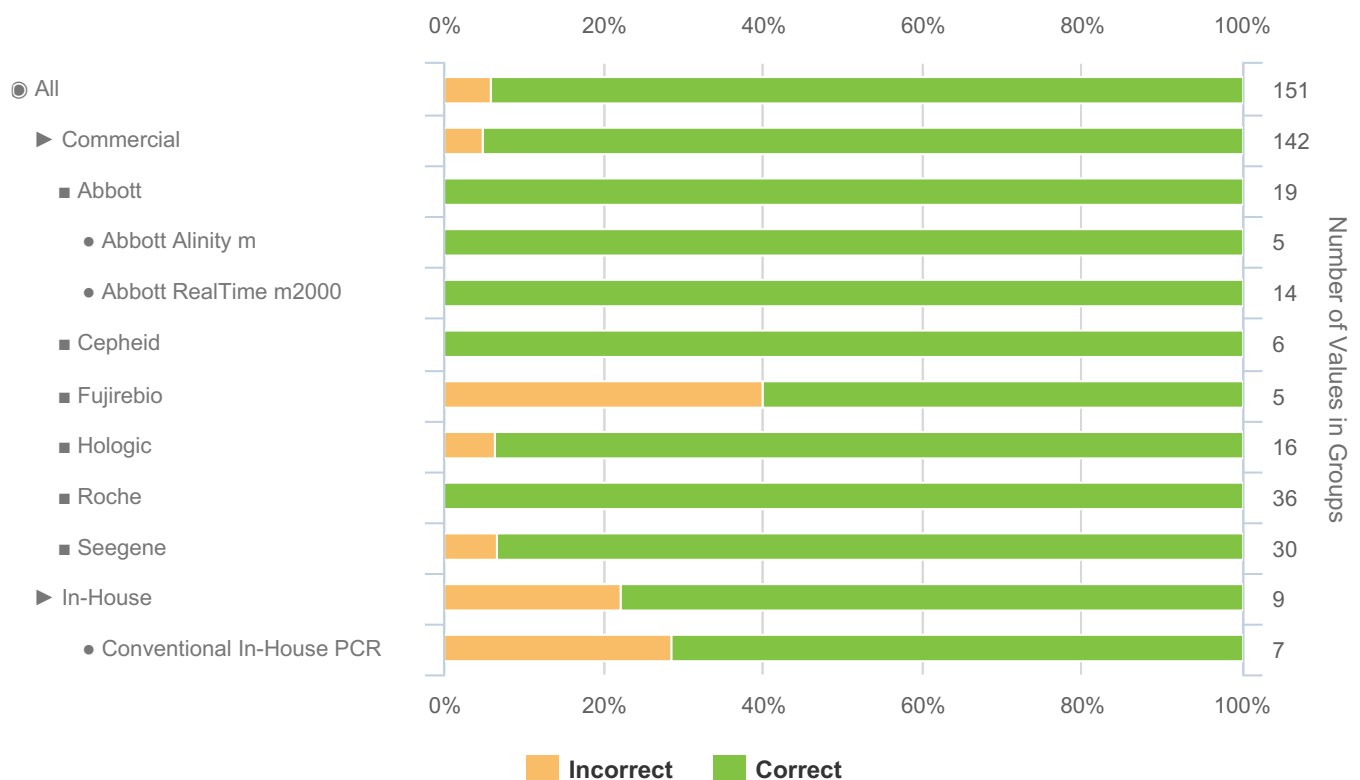
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | | |
|-------------------------------------|-------------------------------|--|---------------------------------|----------------------|--------------------------------|--|--|
| Individual Report | | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  <small>Quality Control for Molecular Diagnostics</small> | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - | |

HPVPRES21S-09 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-09 | Negative | PreservCyt +BSM | | Negative | CORE | 94.0 | 151 |



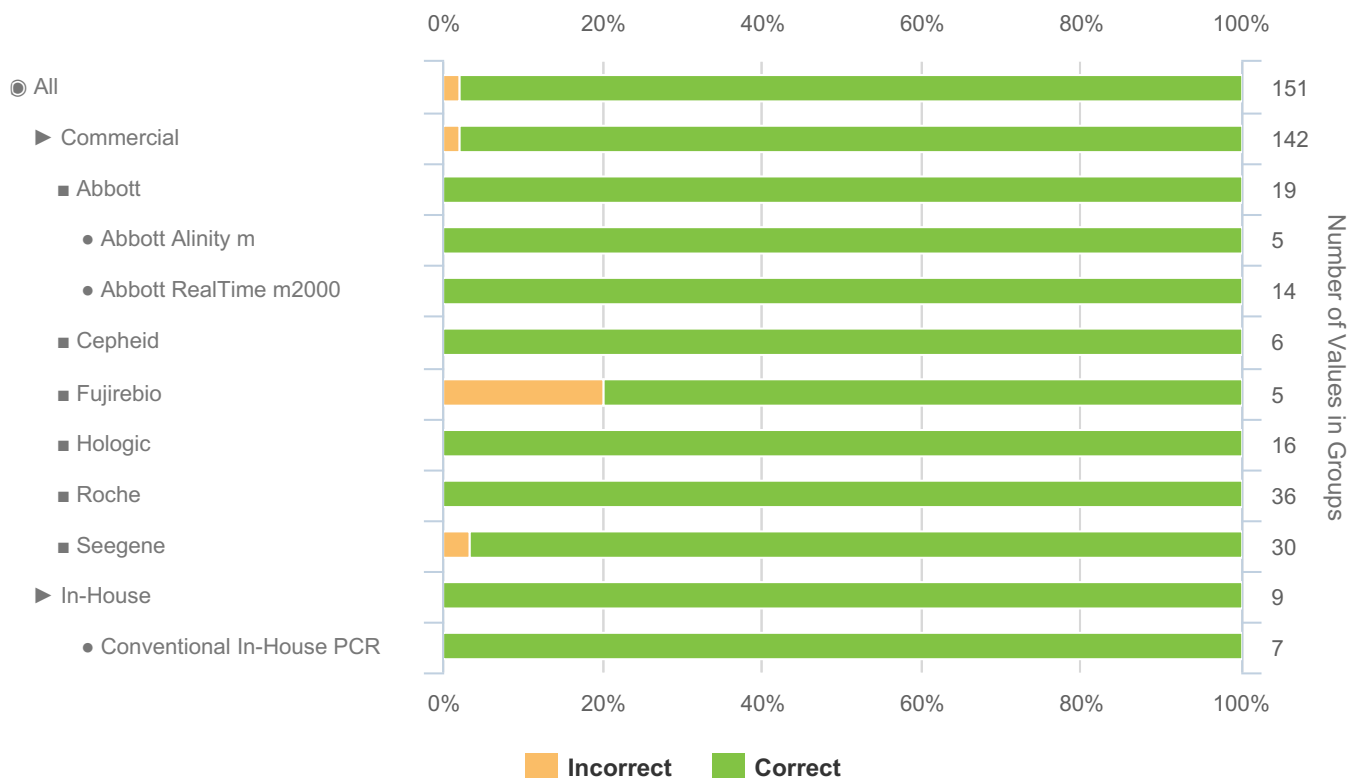
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | | |
|-------------------------------------|-------------------------------|--|---------------------------------|----------------------|--------------------------------|--|--|
| Individual Report | | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  <small>Quality Control for Molecular Diagnostics</small> | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - | |

HPVPRES21S-10 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-10 | HPV16 (Caski) | PreservCyt +BSM | DS2_1 | Frequently Detected | CORE | 98.0 | 151 |



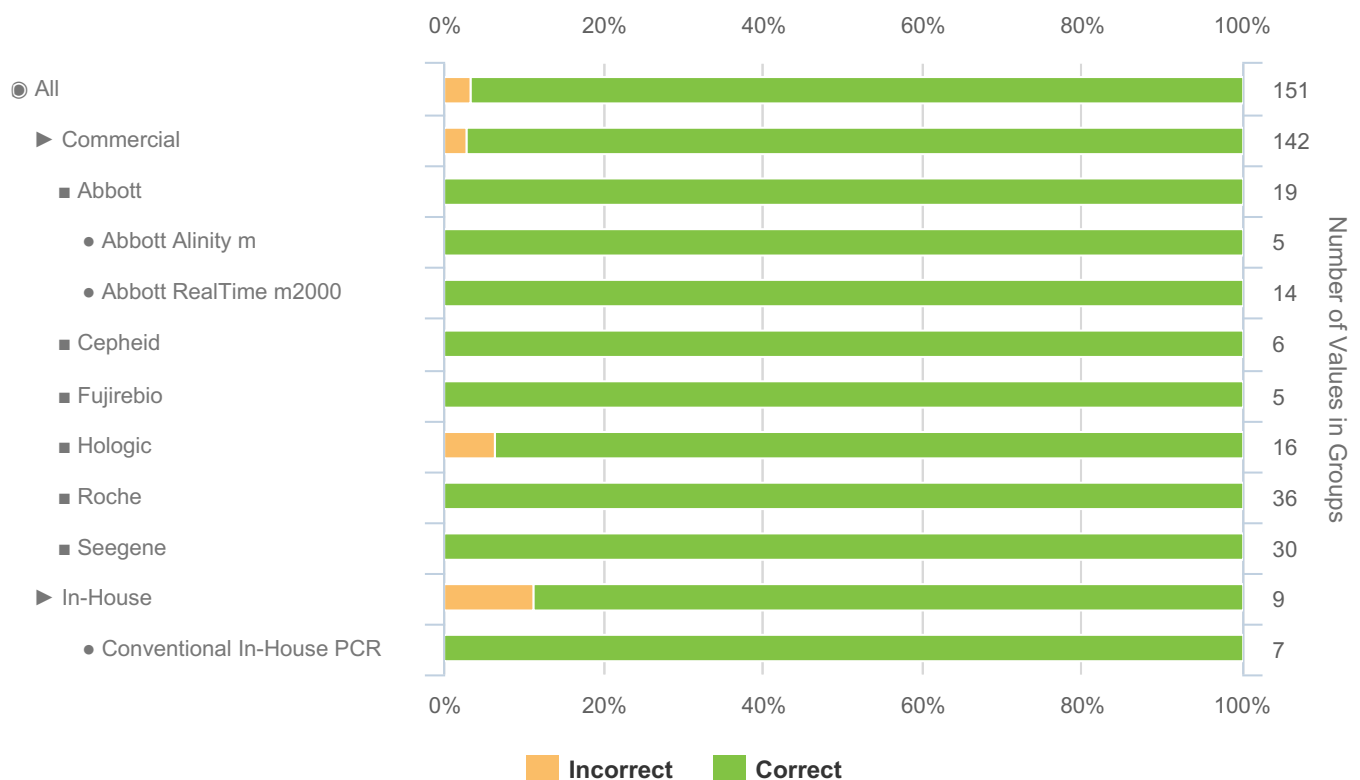
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|---|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-11 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-11 | HPV18 (Hela) | PreservCyt +BSM | DS1_3 | Frequently Detected | CORE | 96.7 | 151 |



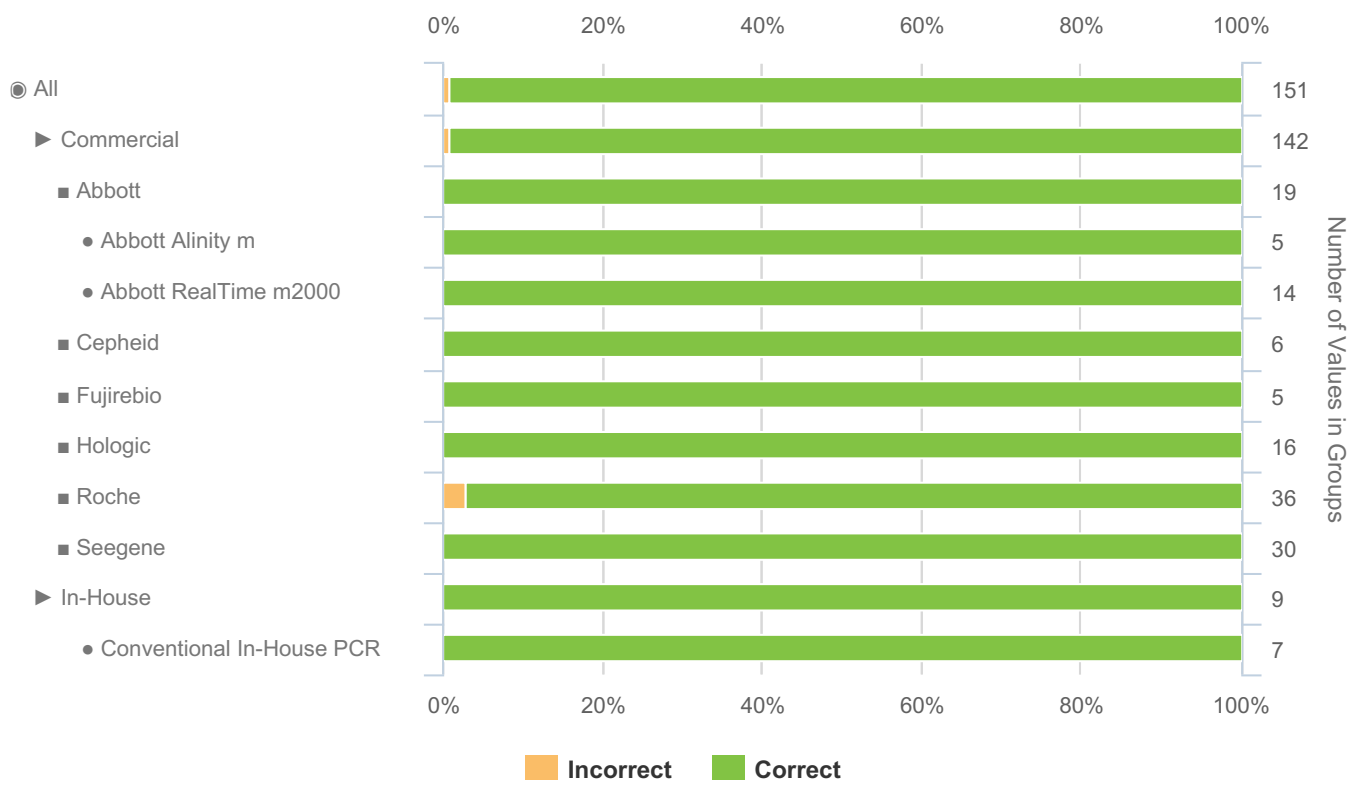
Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|---|------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  Quality Control for Molecular Diagnostics | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory - |

HPVPRES21S-12 - Qualitative Results Breakdown

| Sample Code | Sample Content | Matrix | Sample Relationships | Detection Frequency | Sample Status | Percentage Correct (All) | |
|---------------|----------------|-----------------|----------------------|---------------------|---------------|--------------------------|-----|
| | | | | | | (%) | (n) |
| HPVPRES21S-12 | HPV18 (Hela) | PreservCyt +BSM | DS1_1 | Frequently Detected | CORE | 99.3 | 151 |



Groups below n=5: AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Amplisens (n=1), Amplisens - AmpliSens Real Time PCR (n=1), Atila BioSystems (n=1), Atila BioSystems - Atila BioSystems AmpFire (n=1), BD Molecular Diagnostics (n=3), BD Molecular Diagnostics - BD Onclarity (n=3), DDL Diagnostic Laboratory (n=1), DDL Diagnostic Laboratory - DDL PCR Reagents (n=1), DNA-Technology (n=1), DNA-Technology - DNA-Technology RealTime PCR (n=1), ELITech Group (n=2), ELITech Group - Elitech Elite Real time kit (n=2), EUROIMMUN (n=1), EUROIMMUN - EUROIMMUN EuroARRAY (n=1), GeneProof (n=2), GeneProof - GeneProof Real Time PCR kit (n=2), Genematrix (n=1), Genematrix - Genematrix NeoPlex kit (n=1), Genomed (n=1), Genomed - Genomed Real-Time PCR kit (n=1), Genomica (n=3), Genomica - Genomica CLART (n=3), HybriBio Limited (n=1), HybriBio Limited - HybriBio GenoArray (n=1), Master Diagnostica (n=2), Master Diagnostica - Master Diagnostica Flow Chip (n=2), NLM (n=1), NLM - NLM Genotyping Test (n=1), Operon (n=1), Operon - Operon PCR Reagents (n=1), QIAGEN (n=4), QIAGEN - QIAGEN Artus Real Time (n=1), QIAGEN - QIAGEN Digene HC (n=1), QIAGEN - Qiagen QIAScreen HPV (n=2), Sacace (n=2), Sacace - Sacace Real TM (n=2), In-House - Real-time In-House PCR (n=2)

Groups Rolled Up: Cepheid - Cepheid Xpert kit (n=6), Fujirebio - Fujirebio INNO-LIPA (n=5), Hologic - Hologic Aptima (n=16), Roche - Roche Cobas 4800 (n=36), Seegene - Seegene Anyplex II (n=30)

| | | | | | | |
|-------------------------------------|--|------------------------|---------------------------------|----------------------|--|-------------------------|
| Individual Report | QCMD 2021 Human Papillomavirus (Preservcyt) EQA Programme | | | |  | |
| Catalogue Code: QAV094130 | Ref Code: HPVPRES21 | Challenge: S | Analysis Type: Custom | Dataset: - | Report UID: -/-/3947 | Laboratory: - |

QCMD © 2021. The QCMD EQA programme samples, associated reports and data generated during this programme are intended for External Quality Assessment (EQA) and Proficiency Testing (PT) purposes only. QCMD operates according to a strict Code of Practice which is in line with ISO/IEC 17043 and associated standards. Data reported in QCMD programmes is representative of a laboratory's standard diagnostic testing protocols irrespective of the technology they use. The data provided in the reports are based on technical information provided by the individual laboratories as part of the assessment process, as such it does not constitute a formal technology method comparison. All text and images produced by QCMD are the property of QCMD unless otherwise stated.

The reproduction and use of these materials is not permitted without the express written consent of QCMD. The use of the information provided in QCMD reports for commercial purposes is strictly prohibited.