


Individual Report	QCMD 2018 Enterovirus RNA EQA Programme				 <small>Quality Control for Molecular Diagnostics</small>	
Catalogue Code: QAV984104	Ref Code: EVRNA18	Challenge: C1	Analysis Type: Qualitative	Dataset: 205103	Report UID: 2677/205103/1376	Laboratory CZ023

Intended Results / Panel Composition

Sample Code	Sample Content	Matrix	Sample Relationships ^[1]	Detection Frequency ^[2]	Sample Status ^[3]	Percentage Correct (All) ^[4]	
						(%)	(n)
EVRNA 18C1-01	Coxsackievirus A9	Transport Medium		Frequently Detected	CORE	97.5	159
EVRNA 18C1-02	Enterovirus 71	Transport Medium		Frequently Detected	CORE	100.0	159
EVRNA 18C1-03	Coxsackievirus A24	Transport Medium		Detected	EDUCATIONAL	83.6	159
EVRNA 18C1-04	Enterovirus 68	Transport Medium		Frequently Detected	CORE	98.1	159
EVRNA 18C1-05	Echovirus 30	Transport Medium		Frequently Detected	CORE	95.6	159

[1] **Sample Relationships:** Indicates the relationships of the samples within this challenge. Dilution series are indicated by 'DS1' with each panel member in the dilution series represented by a number in order of titre, where DS1_1 represents the highest titre within that dilution series. Further dilution series are indicated by 'DS2' 'DS3' 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]

Commercial

Core Panel Detection (Qualitative) Score ^[2]

0

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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
EVRNA18C1-01	97.5	Positive	0	242	Copies/ml	-
EVRNA18C1-02	100.0	Positive	0	430000	Copies/ml	-
EVRNA18C1-04	98.1	Positive	0	197222	Copies/ml	-
EVRNA18C1-05	95.6	Positive	0	750	Copies/ml	-

[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.

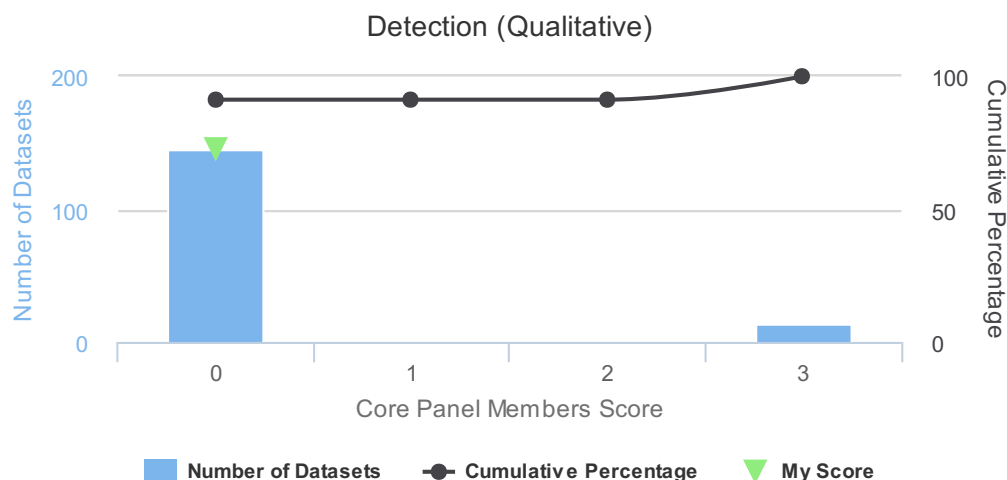
[4] **Percentage Correct (All)** Percentage of datasets (%) reporting the correct qualitative results for each panel member.


[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






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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.

My Workflow Details

The details of the workflow used to submit your results for this challenge.

Name	GeneProof Enterovirus PCR Kit (v2)
Description	
Targets	 enterovirus
Assays	<ul style="list-style-type: none">  Extraction - Manual Extraction Process <ul style="list-style-type: none"> • Commercial <ul style="list-style-type: none"> ◦ Kit Manufacturer: <i>GeneProof</i> ◦ Kit Type: <i>PathogenFree RNA Isolation Kit</i>  Amplification - Bio-Rad - CFX Connect Real-Time PCR Detection System <ul style="list-style-type: none"> • Commercial <ul style="list-style-type: none"> ◦ Kit Manufacturer: <i>GeneProof</i> ◦ Kit Type: <i>GeneProof Enterovirus PCR Kit</i> ◦ Kit Version: <i>ISEX</i>

Educational Panel Members Results

Sample Code	Qualitative Results			Your Quantitative Data (for information only) [1]		
	Percentage Correct (All) [2]	Your Result [3]	Detection Score [4]	Reported Value	Unitage	Cycle Threshold
EVRNA18C1-03	83.6	Positive	0	15189	Copies/ml	-


[1] **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.

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

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

[4] **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.

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Further Programme Details

Number of Participants	134
Number of Countries	30
Number of Respondents	132
Number of Datasets Submitted	159
Qualitative Results Returned	159 (100.0%)

EQA Programme Aims


To assess the ability of laboratories molecular assays to detect different types and concentrations of enterovirus (EV).

To review the performance of laboratories quantitative EV molecular assays.

Feedback and Enquiries

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

Any queries about this report should be addressed to the QCMD Neutral Office (neutraloffice@qcmd.org).

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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.

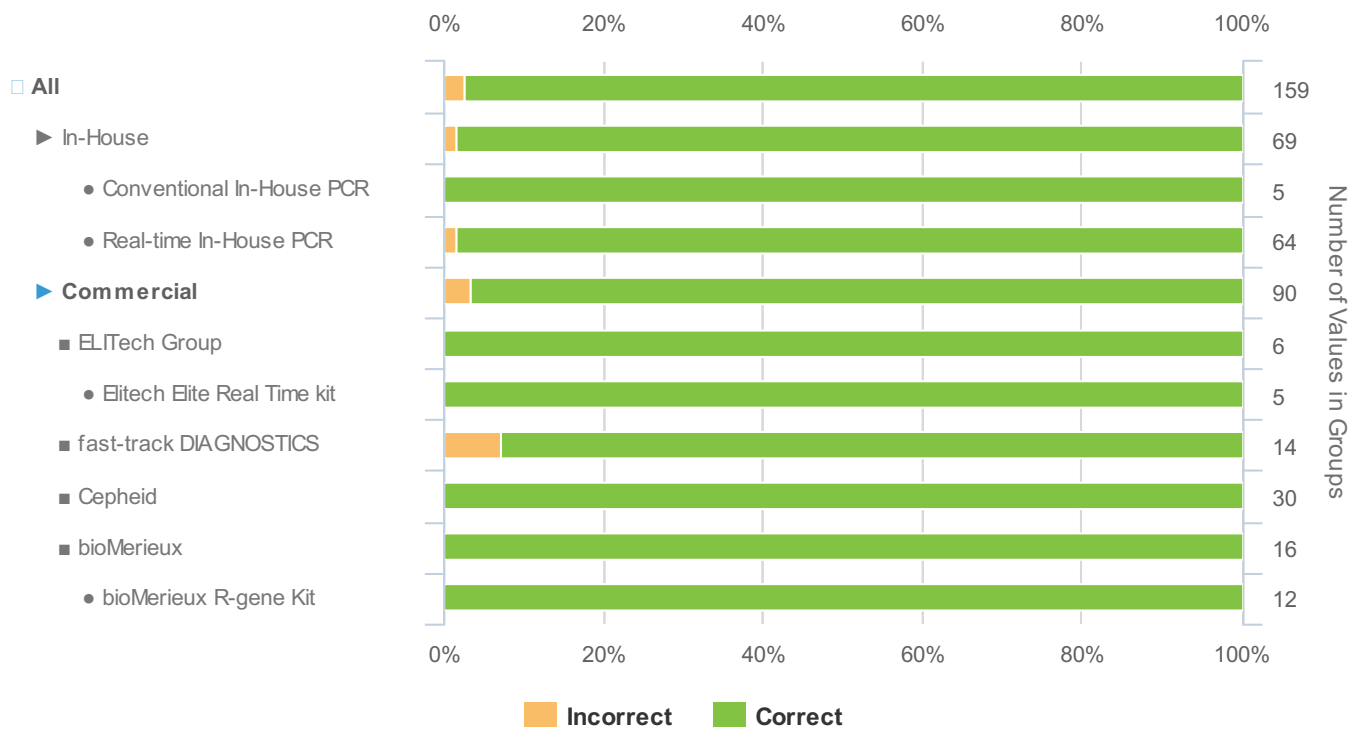
To allow meaningful assessment at the individual method level the EQA assessment group must consist of 5 or more datasets. If there are not sufficient datasets at the individual method level then your results will be included within a higher EQA assessment group based on whether it is a commercial or 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.

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EVRNA18C1-01 - Qualitative Results Breakdown

Sample Code	Sample Content	Matrix	Sample Relationships	Detection Frequency	Sample Status	Percentage Correct All	
						(%)	(n)
EVRNA18C1-01	Coxsackievirus A9	Transport Medium		Frequently Detected	CORE	97.5	159



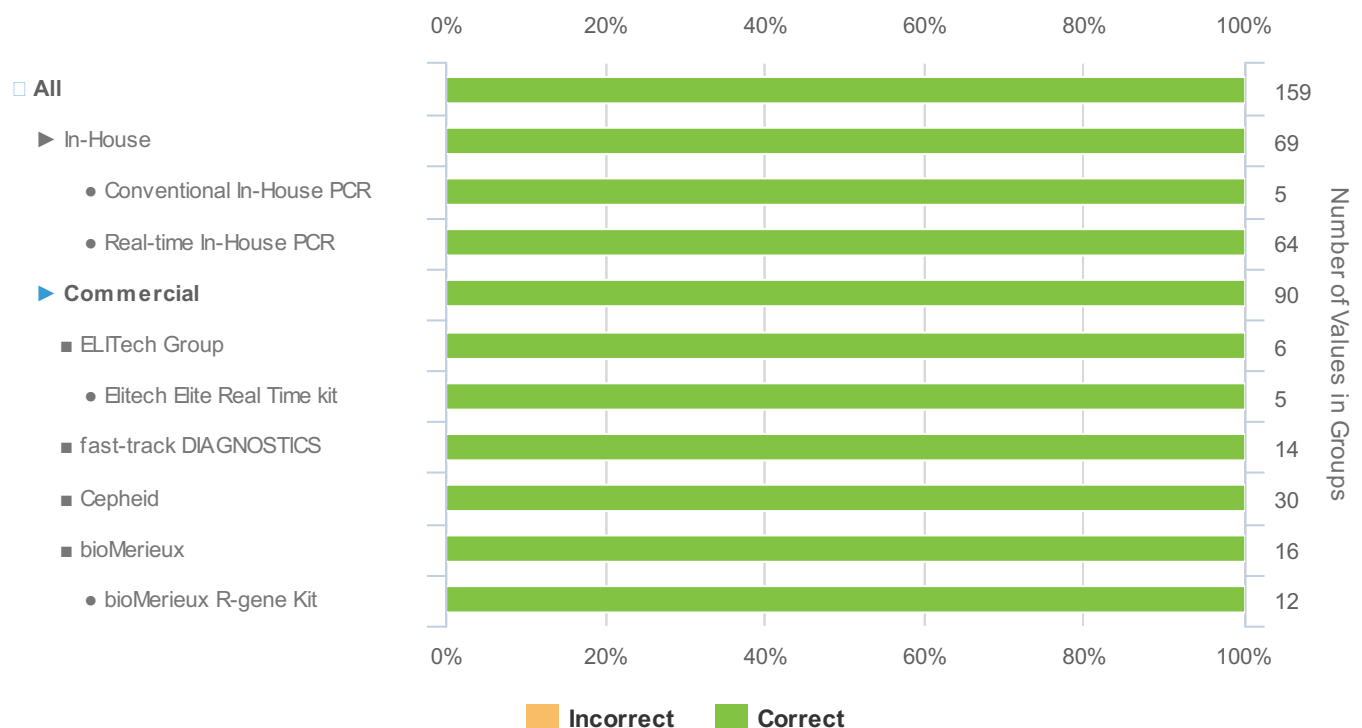
Groups below n=5: ELITech Group - Elitech Alert Real Time Q-PCR (n=1), bioMerieux - BioFire FilmArray (n=4), AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Liferiver (n=1), Liferiver - Liferiver Real Time PCR (n=1), Applied Biosystems (n=1), Applied Biosystems - Applied Biosystems Real Time PCR (n=1), Clonit (n=1), Clonit - Clonit quanty kit (n=1), AusDiagnostics (n=1), AusDiagnostics - AusDiagnostics Easy-Plex (n=1), GenMark Dx (n=1), GenMark Dx - GenMark DX ePlex (n=1), gerbion (n=1), gerbion - gerbion virella (n=1), Seegene (n=4), Seegene - Seegene Real Time PCR (n=4), Diagenode (n=2), Diagenode - Diagenode Real Time kit (n=2), R-Biopharm (n=2), R-Biopharm - R-Biopharm RIDA Gene (n=2), TIB MOLBIOL (n=1), TIB MOLBIOL - TIB-MolBiol LightMix (n=1), PathoFinder (n=1), PathoFinder - PathoFinder Real Time PCR (n=1), GeneProof (n=1), GeneProof - GeneProof Real Time PCR kit (n=1), AnDiaTec (n=1), AnDiaTec - AnDiaTec (n=1), Progenie Molecular (n=4), Progenie Molecular - Progenie Molecular RealCycler (n=4)

Groups Rolled Up: fast-track DIAGNOSTICS - FTD real time PCR (n=14), Cepheid - Cepheid Xpert kit (n=30)

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EVRNA18C1-02 - Qualitative Results Breakdown

Sample Code	Sample Content	Matrix	Sample Relationships	Detection Frequency	Sample Status	Percentage Correct All	
						(%)	(n)
EVRNA18C1-02	Enterovirus 71	Transport Medium		Frequently Detected	CORE	100.0	159



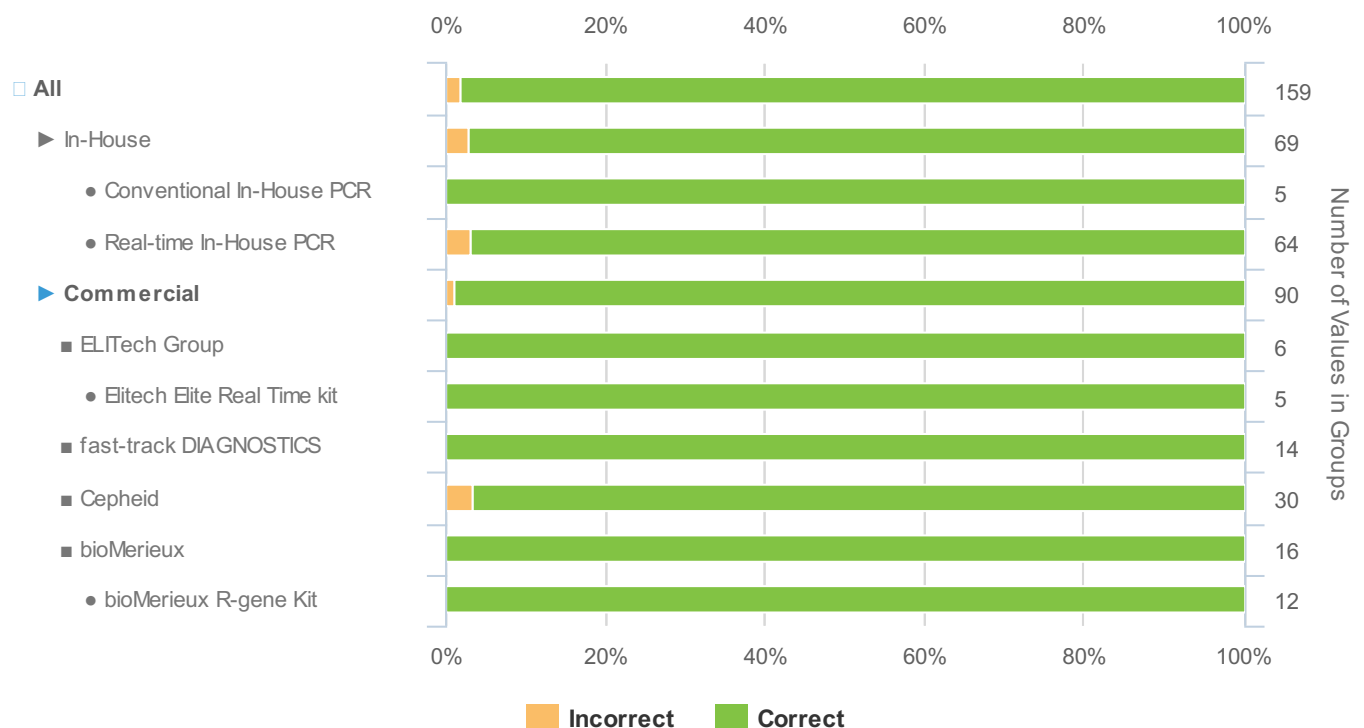
Groups below n=5: ELITech Group - Elitech Alert Real Time Q-PCR (n=1), bioMerieux - BioFire FilmArray (n=4), AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Liferiver (n=1), Liferiver - Liferiver Real Time PCR (n=1), Applied Biosystems (n=1), Applied Biosystems - Applied Biosystems Real Time PCR (n=1), Clonit (n=1), Clonit - Clonit quanty kit (n=1), AusDiagnostics (n=1), AusDiagnostics - AusDiagnostics Easy-Plex (n=1), GenMark Dx (n=1), GenMark Dx - GenMark DX ePlex (n=1), gerbion (n=1), gerbion - gerbion virella (n=1), Seegene (n=4), Seegene - Seegene Real Time PCR (n=4), Diagenode (n=2), Diagenode - Diagenode Real Time kit (n=2), R-Biopharm (n=2), R-Biopharm - R-Biopharm RIDA Gene (n=2), TIB MOLBIOL (n=1), TIB MOLBIOL - TIB-MolBiol LightMix (n=1), PathoFinder (n=1), PathoFinder - PathoFinder Real Time PCR (n=1), GeneProof (n=1), GeneProof - GeneProof Real Time PCR kit (n=1), AnDiaTec (n=1), AnDiaTec - AnDiaTec (n=1), Progenie Molecular (n=4), Progenie Molecular - Progenie Molecular RealCycler (n=4)

Groups Rolled Up: fast-track DIAGNOSTICS - FTD real time PCR (n=14), Cepheid - Cepheid Xpert kit (n=30)

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EVRNA18C1-04 - Qualitative Results Breakdown

Sample Code	Sample Content	Matrix	Sample Relationships	Detection Frequency	Sample Status	Percentage Correct All	
						(%)	(n)
EVRNA18C1-04	Enterovirus 68	Transport Medium		Frequently Detected	CORE	98.1	159



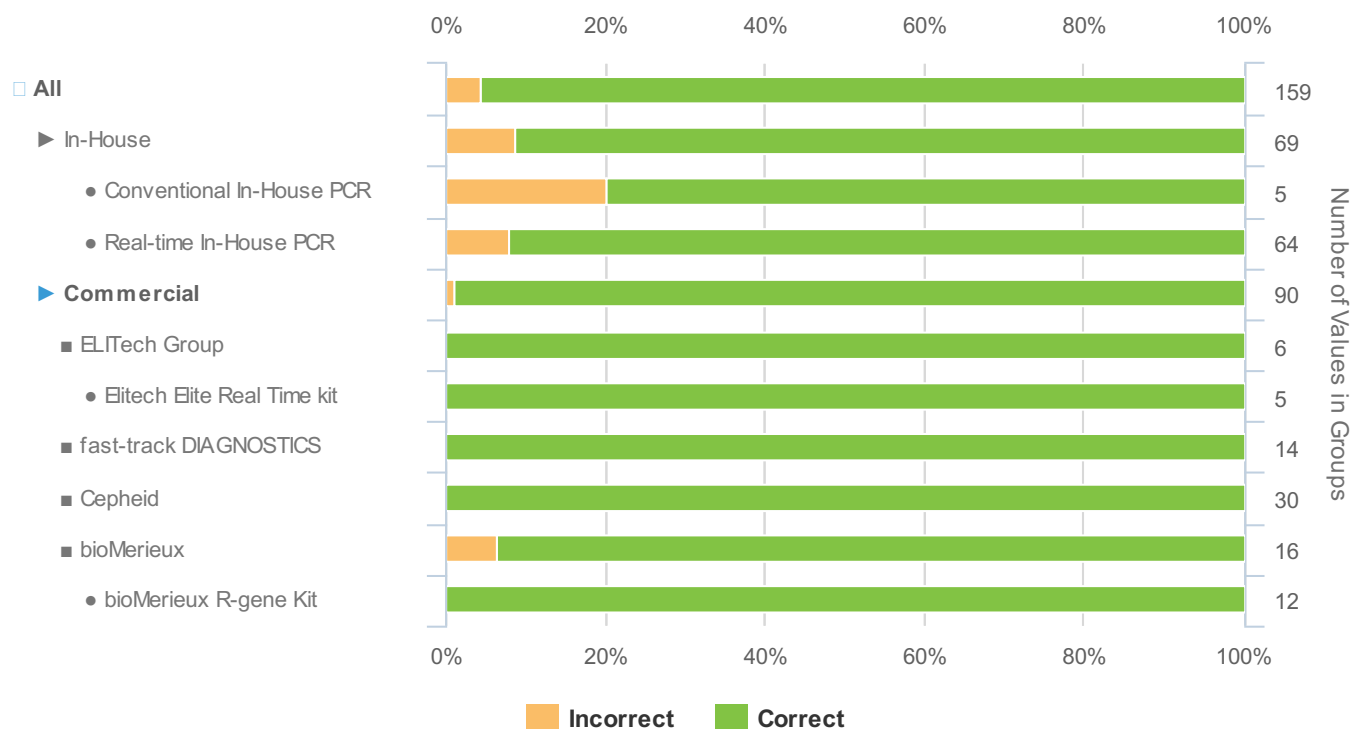
Groups below n=5: ELITech Group - Elitech Alert Real Time Q-PCR (n=1), bioMerieux - BioFire FilmArray (n=4), AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Liferiver (n=1), Liferiver - Liferiver Real Time PCR (n=1), Applied Biosystems (n=1), Applied Biosystems - Applied Biosystems Real Time PCR (n=1), Clonit (n=1), Clonit - Clonit quanty kit (n=1), AusDiagnostics (n=1), AusDiagnostics - AusDiagnostics Easy-Plex (n=1), GenMark Dx (n=1), GenMark Dx - GenMark DX ePlex (n=1), gerbion (n=1), gerbion - gerbion virella (n=1), Seegene (n=4), Seegene - Seegene Real Time PCR (n=4), Diagenode (n=2), Diagenode - Diagenode Real Time kit (n=2), R-Biopharm (n=2), R-Biopharm - R-Biopharm RIDA Gene (n=2), TIB MOLBIOL (n=1), TIB MOLBIOL - TIB-MolBiol LightMix (n=1), PathoFinder (n=1), PathoFinder - PathoFinder Real Time PCR (n=1), GeneProof (n=1), GeneProof - GeneProof Real Time PCR kit (n=1), AnDiaTec (n=1), AnDiaTec - AnDiaTec (n=1), Progenie Molecular (n=4), Progenie Molecular - Progenie Molecular RealCycler (n=4)

Groups Rolled Up: fast-track DIAGNOSTICS - FTD real time PCR (n=14), Cepheid - Cepheid Xpert kit (n=30)

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EVRNA18C1-05 - Qualitative Results Breakdown

Sample Code	Sample Content	Matrix	Sample Relationships	Detection Frequency	Sample Status	Percentage Correct All	
						(%)	(n)
EVRNA18C1-05	Echovirus 30	Transport Medium		Frequently Detected	CORE	95.6	159



Groups below n=5: ELITech Group - Elitech Alert Real Time Q-PCR (n=1), bioMerieux - BioFire FilmArray (n=4), AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Liferiver (n=1), Liferiver - Liferiver Real Time PCR (n=1), Applied Biosystems (n=1), Applied Biosystems - Applied Biosystems Real Time PCR (n=1), Clonit (n=1), Clonit - Clonit quanty kit (n=1), AusDiagnostics (n=1), AusDiagnostics - AusDiagnostics Easy-Plex (n=1), GenMark Dx (n=1), GenMark Dx - GenMark DX ePlex (n=1), gerbion (n=1), gerbion - gerbion virella (n=1), Seegene (n=4), Seegene - Seegene Real Time PCR (n=4), Diagenode (n=2), Diagenode - Diagenode Real Time kit (n=2), R-Biopharm (n=2), R-Biopharm - R-Biopharm RIDA Gene (n=2), TIB MOLBIOL (n=1), TIB MOLBIOL - TIB-MolBiol LightMix (n=1), PathoFinder (n=1), PathoFinder - PathoFinder Real Time PCR (n=1), GeneProof (n=1), GeneProof - GeneProof Real Time PCR kit (n=1), AnDiaTec (n=1), AnDiaTec - AnDiaTec (n=1), Progenie Molecular (n=4), Progenie Molecular - Progenie Molecular RealCycler (n=4)

Groups Rolled Up: fast-track DIAGNOSTICS - FTD real time PCR (n=14), Cepheid - Cepheid Xpert kit (n=30)

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Additional Educational Samples Information

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Educational ► Qualitative

Individual Panel Member Analysis (Qualitative)

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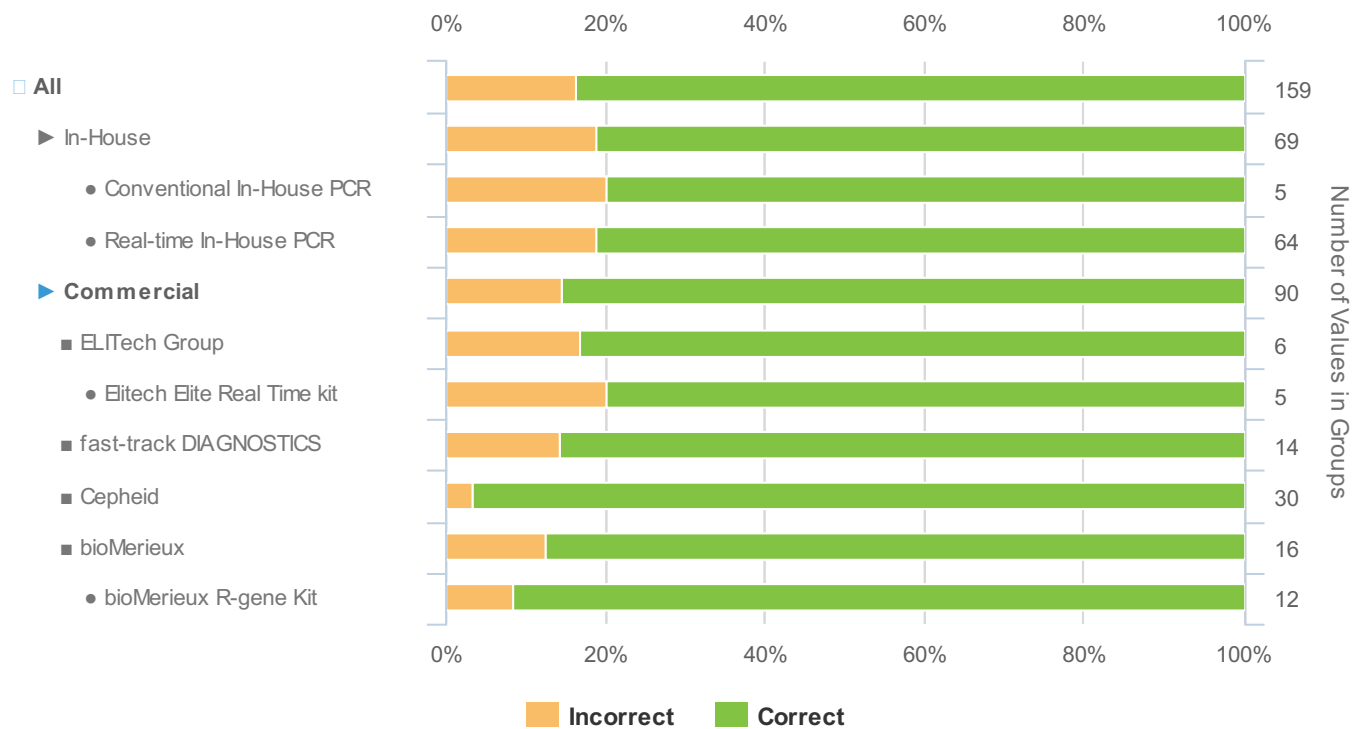
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EVRNA18C1-03 - Qualitative Results Breakdown

Sample Code	Sample Content	Matrix	Sample Relationships	Detection Frequency	Sample Status	Percentage Correct All	
						(%)	(n)
EVRNA18C1-03	Coxsackievirus A24	Transport Medium		Detected	EDUCATIONAL	83.6	159



Groups below n=5: ELITech Group - Elitech Alert Real Time Q-PCR (n=1), bioMerieux - BioFire FilmArray (n=4), AB Analytica (n=2), AB Analytica - AB Analytica REALQUALITY RQ (n=2), Liferiver (n=1), Liferiver - Liferiver Real Time PCR (n=1), Applied Biosystems (n=1), Applied Biosystems - Applied Biosystems Real Time PCR (n=1), Clonit (n=1), Clonit - Clonit quanty kit (n=1), AusDiagnostics (n=1), AusDiagnostics - AusDiagnostics Easy-Plex (n=1), GenMark Dx (n=1), GenMark Dx - GenMark DX ePlex (n=1), gerbion (n=1), gerbion - gerbion virella (n=1), Seegene (n=4), Seegene - Seegene Real Time PCR (n=4), Diagenode (n=2), Diagenode - Diagenode Real Time kit (n=2), R-Biopharm (n=2), R-Biopharm - R-Biopharm RIDA Gene (n=2), TIB MOLBIOL (n=1), TIB MOLBIOL - TIB-MolBiol LightMix (n=1), PathoFinder (n=1), PathoFinder - PathoFinder Real Time PCR (n=1), GeneProof (n=1), GeneProof - GeneProof Real Time PCR kit (n=1), AnDiaTec (n=1), AnDiaTec - AnDiaTec (n=1), Progenie Molecular (n=4), Progenie Molecular - Progenie Molecular RealCycler (n=4)

Groups Rolled Up: fast-track DIAGNOSTICS - FTD real time PCR (n=14), Cepheid - Cepheid Xpert kit (n=30)

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