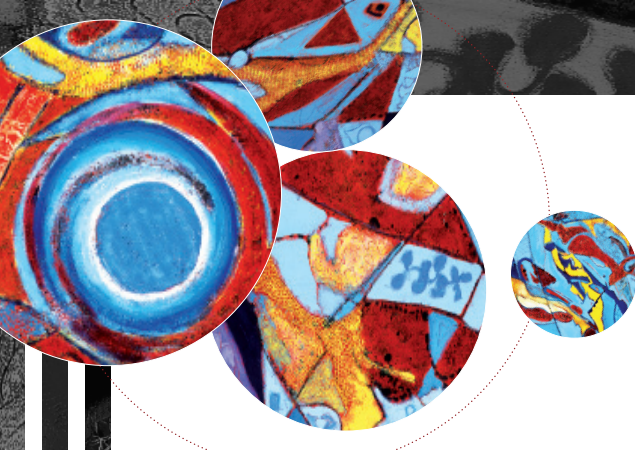


ENTEROVIRUS



Panel composition

This EQA panel for the detection of Enterovirus consisted of 10 samples containing various strains and concentrations of Enterovirus and 2 negative samples (VTM).

Material and methods

The QCMD panel was prepared using NucliSENS® easyMAG® (bioMérieux) for sample extraction with Specific B protocol (200/50).

Subsequently, the samples were analysed by real-time PCR using **ENTEROVIRUS R-gene®** (bioMérieux - ref.: 69-005B) «new version» on ABI 7500 Fast (Applied Biosystems).

Results and discussion

Panel code	QCMD Results			ENTEROVIRUS R-gene® Results
	Sample Content	Sample Type*	Sample status	Ct (530 nm)
EVRNA 2014-01	Enterovirus 71	Core	Frequently detected	31.25
EVRNA 2014-02	Negative	Core	Negative	Negative
EVRNA 2014-03	Coxsackievirus A24	Core	Detected	36.38
EVRNA 2014-04	Enterovirus 71	Educational	Detected	39.15
EVRNA 2014-05	Coxsackievirus B3	Educational	Detected	41.04
EVRNA 2014-06	Echovirus 11	Educational	Detected	38.64
EVRNA 2014-07	Coxsackievirus A9	Core	Detected	37.42
EVRNA 2014-08	Negative	Core	Negative	Negative
EVRNA 2014-09	Coxsackievirus A16/B5	Core	Frequently detected	32.72
EVRNA 2014-10	Enterovirus 68	Core	Detected	28.11
EVRNA 2014-11	Coxsackievirus B3	Core	Frequently detected	30.04
EVRNA 2014-12	Echovirus 11	Core	Frequently detected	31.87

*«The QCMD EQA panels contain a range of samples, designed to look at different aspects of assay performance. Panel members are designated 'core proficiency samples' on the basis of scientific information, clinical relevance and clinical experience (...). Laboratories are expected to correctly analyse and report the core proficiency samples in order to show acceptable proficiency.» QCMD-2014-general-announcement
Consequently, the educational samples are considered as challenging due to very low concentrations. They are clearly detection limits.

- 100% (7/7) "Core" Enterovirus-positive samples of Panel Enterovirus RNA 2014 are detected with Enterovirus R-gene®.
- The 2 "Core" negative samples are undetected as expected with Enterovirus R-gene®.
- 3/3 "Educational" samples are detected with Enterovirus R-gene®.
- All 7 strains tested in this QCMD (EV-71, CV-A24, CV-B3, E-11, CV-A9, CV-A16/B5, EV-68) were detected with Enterovirus R-gene®.
- The results show the good sensitivity and specificity of the Enterovirus R-gene® «new version» - ref.: 69-005B.

Sensitivity of ENTEROVIRUS R-gene®

Analytical sensitivity has been performed on either Echovirus 25 or Poliovirus S3 serial dilutions in CSF.

The results show :

- a 95% probability to detect Echovirus 25 at 0.4 TCID₅₀/mL in the CSF matrix
- a 95% probability to detect Poliovirus S3 at 0.03 TCID₅₀/mL in the CSF matrix