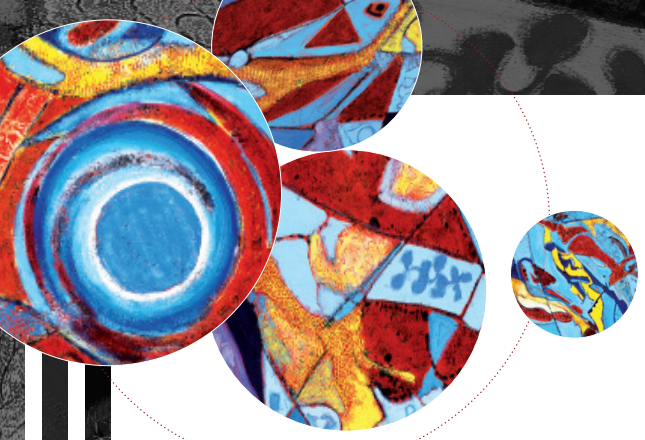

ARGENE

QCMD proficiency panels 2014

Varicella-Zoster Virus

Panel composition

This EQA panel for the detection of Varicella-Zoster Virus (VZV) consisted of 8 samples containing various concentrations and strains of VZV, one HSV1-positive sample and one negative sample. The samples were in Transport Medium.

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 **VZV premix** (R3) of **HSV1 HSV2 VZV R-gene®** (bioMérieux - ref.: 69-004B) on ABI 7500 Fast (Applied Biosystems).

Results and discussion

	QCMD Results				HSV1 HSV2 VZV R-gene® **VZV premix** Results	
Panel code	Sample Content	Sample Type*	Copies/mL	Log_{10} Copies/mL	Log_{10} Copies/mL	Delta Log_{10} Copies/mL
VZVDNA 14-01	VZV (Ellen)	Core	1,849	3.27	3.64	0.37
VZVDNA 14-02	VZV (63/1444)	Core	2,183	3.34	3.66	0.32
VZVDNA 14-03	VZV (63/1444)	Educational	292	2.47	2.86	0.40
VZVDNA 14-04	HSV	Core	Negative	Negative	Negative	Negative
VZVDNA 14-05	VZV (9/84)	Core	520	2.72	2.91	0.19
VZVDNA 14-06	VZV (9/84)	Educational	95	1.98	2.03	0.05
VZVDNA 14-07	Negative	Core	Negative	Negative	Negative	Negative
VZVDNA 14-08	VZV (OKA)	Core	2,864	3.46	3.88	0.42
VZVDNA 14-09	VZV (OKA)	Core	8,279	3.92	4.39	0.47
VZVDNA 14-10	VZV (Ellen)	Educational	118	2.07	2.26	0.19

**«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.

- **The 5 "Core" VZV-positive samples are detected when using the VZV premix (R3) of HSV1 HSV2 VZV R-gene® kit.**
- **The 2 "Core" negative samples, including one HSV-positive sample, are undetected with the VZV premix (R3) as expected.**
- **All "Educational" samples (i.e. challenging samples), containing very low viral loads ranging from 95 to 292 copies/mL, are detected.**
- **In term of quantification, the maximum delta Log(Copies/mL) observed is 0.47, showing the good correlation between QCMD and HSV1 HSV2 VZV R-gene® quantifications.**
- **The expected difference (i.e. 0.949 Log_{10}) between the paired-samples of the panel VZVDNA 14-02 and 14-03 is reached with HSV1 HSV2 VZV R-gene® (i.e. 0.8 delta Log_{10}). This result shows the robustness of the assay.**
- **The results show the good sensitivity and specificity of the HSV1 HSV2 VZV R-gene® - ref.: 69-004B.**

"The data presented in this document illustrates the performance of the HZV1 HSV2 VZV R-gene® assay when testing the VZV DNA EQA 2014 QCMD panel. The results are not representative of the QCMD EQA program report and full details on the QCMD EQA program can be obtained from the QCMD website (www.qcmd.org)".

BIOMÉRIEUX

HSV1 HSV2 VZV R-gene®