

Human Herpes Virus-6

Panel composition

This EQA panel for the detection of Human Herpes Virus 6 (HHV-6) consisted of 8 samples containing various concentrations and strains of HHV-6, 1 sample of CMV and 1 negative sample.

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 **HHV6 (R6)** premix of **CMV HHV6,7,8 R-gene®** (bioMérieux - ref.: 69-100B) on ABI 7500 Fast (Applied Biosystems).

Results and discussion

Panel code	Sample Content	Sample Type*	QCMD Results		CMV HHV6,7,8 R-gene® HHV6 (R6) Premix Results	
			Copies/mL	Log ₁₀ Copies/mL	Log ₁₀ Copies/mL	Delta Log ₁₀ Copies/mL
HHV613-01	HHV-6 Negative (Plasma)	Core	Negative	Negative	Negative	NA
HHV613-02	CMV (VTM)	Core	Negative	Negative	Negative	NA
HHV613-03	HHV-6 Type B (Plasma)	Core	822	2.92	3.04	0.12
HHV613-04	HHV-6 Type B (VTM)	Core	9,016	3.96	4.12	0.16
HHV613-05	HHV-6 Type A (VTM)	Educational	121	2.08	2.19	0.11
HHV613-06	HHV-6 Type A (VTM)	Core	386	2.59	2.79	0.20
HHV613-07	HHV-6 Type B (VTM)	Core	944	2.98	3.16	0.18
HHV613-08	HHV-6 Type B (VTM)	Educational	252	2.40	2.49	0.09
HHV613-09	HHV-6 Type B (Plasma)	Core	7,798	3.89	4.14	0.25
HHV613-10	HHV-6 Type A (VTM)	Core	2,449	3.39	3.38	-0.01

*«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 2013 general announcement
Consequently, the educational samples are considered as challenging due to very low concentrations. They are clearly detection limits.

- The 6 “Core” HHV6-positive samples from the HHV6 DNA 2013 QCMD Panel are detected with CMV HHV6,7,8 R-gene®.
- The 2 “Core” negative samples, including a sample positive for CMV, are undetected as expected with the HHV6 (R6) premix of CMV HHV6,7,8 R-gene® kit.
- The 2 “Educational” samples (i.e. challenging samples), containing low viral loads of 121 and 252 copies/mL, are detected with HHV6 (R6) premix of CMV HHV6,7,8 R-gene® kit.
- The delta log observed between QCMD and Argene quantification results (ranging from -0.01 to 0.25 Log₁₀ copies/mL) are always below 0.5 log₁₀, showing the excellent correlation between both quantifications.
- All together, the results show the good sensitivity and specificity of CMV HHV6,7,8 R-gene® (ref.: 69-100B).