BIOMÉRIEUX

CMV R-GENE®

REAL TIME PCR ASSAYS - ARGENE® TRANSPLANT RANGE

The power of true experience

PIONEERING DIAGNOSTICS

CMV R-GENE®

KEY FEATURES

- Ready-to-use reagents
- Complete qualitative and quantitative kit
- Validated on most relevant sample types
- Validated with the major extraction and amplification platforms
- Designed for low to high throughput analysis
- Same procedure for all the ARGENE® Transplant kits

CLINICAL CONTEXT[1,2,3]

Cytomegalovirus (CMV) is a DNA virus, member of the Herpesviridae family. This is an ubiquitous virus with a seroprevalence around 40% to 60% in industrialized countries, and reaching 90% to 100% in developing countries. Primary infection, usually asymptomatic, occurs during childhood. After primo-infection, CMV enters in latency in white blood cells.

In transplant patients, CMV disease remains one of the most common complications, with significant morbidity and mortality[1,2]. CMV can cause non-specific febrile syndrome (fever, leukopenia and atypical lymphocytosis), organ-specific diseases (colitis, pneumonia, retinitis, meningitis, hepatitis...), indirect effects (acute rejection, chronic graft dysfunction) or disseminated infections. Although new infections can occur, the majority of cases in transplant patients are due to reactivation[3]. Real-time quantitative polymerase chain reaction (PCR) is now the standard of care for diagnosis and monitoring of CMV infection and disease[1].

TECHNICAL INFORMATION

ORDERING INFORMATION	CMV R-GENE® - Ref. 69-003B
Type of kit	Real-time detection and quantification kit
Gene target	UL83 gene coding for ppUL83 protein
Validated specimens	Whole blood, Plasma, Serum, CSF, BAL, Urine, Biopsies, Amniotic Fluid
Validated extraction platforms	EMAG®, easyMAG®, MagNA Pure Compact, MagNA Pure LC, MagNA Pure 96, QIAsymphony SP, QIAamp DNA Blood Mini Kit, DNA Extraction kit (ref. 67-000)
Validated amplification platforms	LightCycler 2.0, LightCycler 480 (System II), ABI 7500, ABI 7500 Fast, ABI 7500 Fast Dx, ViiA 7, StepOne, Rotor-Gene Q, CFX96
Limit of Detection (LoD 95%)	Whole blood: 2.6 $\log_{10}$ copies/mL
Quantification Range	2.7 to 7.0 $\log_{10}$ copies/mL
Controls included	Extraction / Inhibition Control, Negative Control, Positive Control (QS3), 4 Quantification Standards, Sensitivity Control
Number of tests	90 tests
Storage conditions	-15°C / -31°C
Status	For *in vitro* diagnostic use, CE-IVD marking

OTHER ARGENE® TRANSPLANT KITS

• EBV R-GENE® (69-002B) • HSV1 HSV2 VZV R-GENE® (69-004B) • ADENOVIRUS R-GENE® (69-010B) • BK Virus R-GENE® (69-013B)
• Parvovirus B19 R-GENE® (69-019B) • CMV HHV6,7,8 R-GENE® (69-100B)

REFERENCES

1. Kotton *et al.*, Updated International Consensus Guidelines on the Management of Cytomegalovirus in Solid-Organ Transplantation. Transplantation 2013; 96: 333-60
2. Camargo *et al.*, Emerging concepts in cytomegalovirus infection following hematopoietic stem cell transplantation. Hematology Oncology and Stem Cell Therapy 2017
3. Miller *et al.*, Monitoring for Viral Infections in Transplant Patients. Clinical Microbiology Newsletter 2016; 38: 129-134

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