

Division of Laboratory Medicine

Molecular Microbiology

CMV (Cytomegalovirus) antiviral resistance markers

CMV viral load positive bloods. Complete CMV antiviral resistance genotypic screening including

UL97: Nucleotide sequencing of the CMV phosphotransferase gene for the identification of mutations encoding resistance to ganciclovir and maribavir.

UL54: Nucleotide sequencing of the DNA polymerase gene for the identification of mutations encoding resistance to ganciclovir, foscarnet and cidofovir.

General information

Collection container (including preservatives):

CE marked leak proof container
EDTA blood tube

Specimen type: EDTA blood

Specimen transport: Ambient or refrigerated

For PCR for confirmation of active CMV infection and monitoring of antiviral therapy please send 4mL of EDTA blood. This should be stored at 4°C and dispatched as soon as possible after being drawn.

If longer storage is unavoidable, serum or plasma may be stored frozen, but should not be repeatedly frozen and thawed. In special circumstances, 0.5mL of serum or plasma can be tested, but for such small volumes avoid using a large container but use a small capacity container with a screw-cap, such as an Eppendorff tube.

Minimum volume of sample: 3.0 mL

Special precautions: If processing is delayed, refrigeration is preferable to storage at ambient temperature. Delays of over 48hr are undesirable.

Laboratory information

Measurement units: mL Wild type / resistant mutation

Biological reference units: Not applicable

Turnaround time for provisional result (working days): 5 days

Turnaround time to final result (working days): 7 days

Division of Laboratory Medicine

Molecular Microbiology

Clinical information

Clinical decision points: Not applicable

Factors known to significantly affect the results:

False negative results may occur for a variety of reasons, for example inappropriate timing of sample collection, inappropriate sample, presence of virus below the detectable limit of the assay.

New and emerging variants may also occur which may not be detected by this assay. Towards the limit of detection of an assay sampling variation will result in lower reproducibility.

(Last updated November 2023)