

Meningitis/Encephalitis Panel Qualitative Real-time PCR

Central nervous system (CNS) infections can cause inflammation of the brain and the meningeal tissue surrounding the brain, with approximately 15% of cases being fatal. Even in nonfatal cases, the infection can result in visual and hearing deficits, seizures, and altered learning or memory. Rapid detection of the most common causative agents of CNS infection is important for a number of reasons, including the possibility of limiting the length of hospital stays when a non-life-threatening infection or no infection is found. Unnecessary use of toxic antibiotic or antiviral medications may also be limited with rapid determination of the causative agent (or lack thereof) in a suspected case of meningitis or encephalitis. The FDA- approved BioFire FilmArray Meningitis/Encephalitis (M/E) panel is a qualitative, multiplexed, real-time PCR assay. It is capable of simultaneous detection of multiple pathogens directly from cerebrospinal fluid (CSF). The M/E Panel identifies the organisms listed to the right. Only *E. coli* strains possessing the K1 capsular antigen will be detected; all other *E. coli* strains and serotypes will not be detected. Only encapsulated strains of *N. meningitidis* will be detected; unencapsulated strains will not be detected¹⁻². For more information, call the lab at 513-636-9820.

Reporting Units:

Positive/Negative

Sample:

The only acceptable sample for this assay is cerebrospinal fluid (CSF) collected via lumbar puncture. It is NOT intended for use with CSF collected from an indwelling medical device (shunt). Grossly bloody or clotted samples are NOT acceptable for this test.

Requested volume: 1mL

Shipping Conditions:

- Ambient if sent within 24 hours
- On cold packs if sent >24 hours after collection

Testing Schedule:

Meningitis/Encephalitis panel testing is performed across all shifts and days. **TAT:** <24 hours.

Organisms Detected:

Bacteria:

Escherichia coli K1
Haemophilus influenzae
Listeria monocytogenes
Neisseria meningitidis
Streptococcus agalactiae
Streptococcus pneumoniae

Viruses:

Cytomegalovirus (CMV)
Enterovirus (EV)
Herpes Simplex Virus 1 (HSV-1)
Herpes Simplex Virus 2 (HSV-2)
Human Herpesvirus 6 (HHV-6)
Human Parechovirus (PEV)
Varicella-Zoster Virus (VZV)

Yeast:

Cryptococcus gattii/neoformans

EPIC Test Code:

10591423

CPT Code:

See component codes.

Clinical Lab Index:

<https://www.testmenu.com/cincinnatichildrens/tests/693135>

Contact Information:

Cincinnati Children's Division of Pathology
Molecular and Genomic Pathology Services (MGPS)

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Fax: 513-517-7099

Email: pathology@cchmc.org

Website: cincinnatichildrens.org/pathology

For pricing or billing questions, call 513-636-4261.

Shipping Address:

Cincinnati Children's Hospital Medical Center
Attn: Molecular and Genomic Pathology Services (MGPS)
3333 Burnet Ave, R2.001
Cincinnati, OH 45229

References:

1. FilmArray® Meningitis/Encephalitis (ME) Panel Instruction Booklet. RFI-T-PRT-0276-01. BioFire Diagnostics, LLC. October 2015.
2. Versalovic J, Carroll K, Funke G, et al, eds. Manual of Clinical Microbiology. 10th ed. American Society of Microbiology Press, Washington D.C. 2011.