

EurobioPlex BACTERIAL MENINGITIS

Because life does not wait!



MADE BY
EUROBIO
SCIENTIFIC
IN FRANCE



QUICK: Results in less than 90min¹



Convenient: PCR directly on CSF²



COMPETITIVE: Sensitivity : >98%³
Specificity : >95% to 98%³

• Community Panel:

Neisseria meningitidis ; Streptococcus pneumoniae ; Haemophilus influenzae

• Nosocomial Panel:

Staphylococcus aureus ; Pseudomonas aeruginosa

• Neonatal Panel:

Streptococcus agalactiae ; Listeria monocytogenes ; Escherichia coli

1. For more information, please refer to the paragraph « Procedure » of the technical sheets
2. For more information, please refer to the paragraph « Use » of the technical sheets
3. For more information, please refer to the paragraph « Performance analysis » of the technical sheets

CLINICAL CONTEXT

Meningitis is an infection of the envelopes of the central nervous system. It can be of bacterial or viral origin, and many pathogens can be the cause. Bacterial meningitis has a fairly low incidence (about 1300 cases / year in France) but a high mortality or sequelae rate.⁴

Community meningitis is nearly always caused by three bacterial species: *Hemophilus influenzae*, *Streptococcus pneumoniae*, and *Neisseria meningitidis*. these 3 species are part of the 4 major causes of acute bacterial meningitis over the world.⁴

Nosocomial meningitis is caused mainly by *Staphylococcus aureus* or *Pseudomonas aeruginosa*. These bacteria contaminate the CSF following neurosurgical procedures, such as the intraventricular catheterization (*Pseudomonas aeruginosa*).⁵

Maternal-fetal meningitis is acquired by contamination either at the time of delivery or after birth: *Streptococcus agalactiae* (carried asymptotically by 25 to 35% of women at the vaginal or rectal level) *Listeria monocytogenes* and *Escherichia Coli* are the most prevalent bacteria. *E.Coli* is carried asymptotically at the rectal level by 45 to 50% of women of childbearing age and maternal-fetal contamination affects 70% of newborns.⁶

DIAGNOSIS

A cytobacteriological examination of the cerebrospinal fluid (CSF) with Gram staining and determination of the leukocyte formula are essential. These analyses must be performed in parallel with biochemical examinations to determine the diagnostic score.⁷

In case of suspicion of meningitis and depending on the clinical context, it is still recommended to perform molecular biology tests targeted to the bacteria or virus concerned.

CHARACTERISTICS

Test principle	Detection of the different genomes of the bacteria involved
Technology	Real Time PCR
Pathogens identified	<i>Neisseria meningitidis</i> , <i>Streptococcus pneumoniae</i> , <i>Haemophilus influenzae</i> , <i>Staphylococcus aureus</i> , <i>Pseudomonas aeruginosa</i> , <i>Streptococcus agalactiae</i> , <i>Listeria monocytogenes</i> , <i>Escherichia coli</i>
Analytical Sensitivity ³	10 copies/μl
Sample Type ¹	DNA extract or direct CSF
Included controls ²	Positive, negative and internal controls
Time to result ³	90 min

Reference	Description	Packaging
EBX-020	EurobioPlex Community meningitis <i>Neisseria meningitidis</i> ; <i>Streptococcus pneumoniae</i> ; <i>Haemophilus influenzae</i>	36 tests
EBX-021	EurobioPlex Nosocomial meningitis <i>Staphylococcus aureus</i> ; <i>Pseudomonas aeruginosa</i>	
EBX-022	EurobioPlex Maternal-fetal meningitis <i>Streptococcus agalactiae</i> ; <i>Listeria monocytogenes</i> ; <i>Escherichia coli</i>	

4. <https://www.who.int/news-room/fact-sheets/detail/meningitis>

5. Pr Didier Neau, 2012. Central nervous system infections in the immunocompetent.

6. UPS Medicine. Meningitis [07-2019]

7. P. Lanotte. 2018. REMIC. France. SFM.p171-180.REMIC 6.1.Central nervous system infections. [07-2019]

FL-EBX02-280324-EN