



Seeplex®

Meningitis

Virus / Bacteria Detection

Seeplex® Meningitis ACE Detection
detects meningitis-causing viruses
and bacteria from CSF.

CE 0086 IVD

 **Seegene**



Meningitis

Multiplex PCR Test

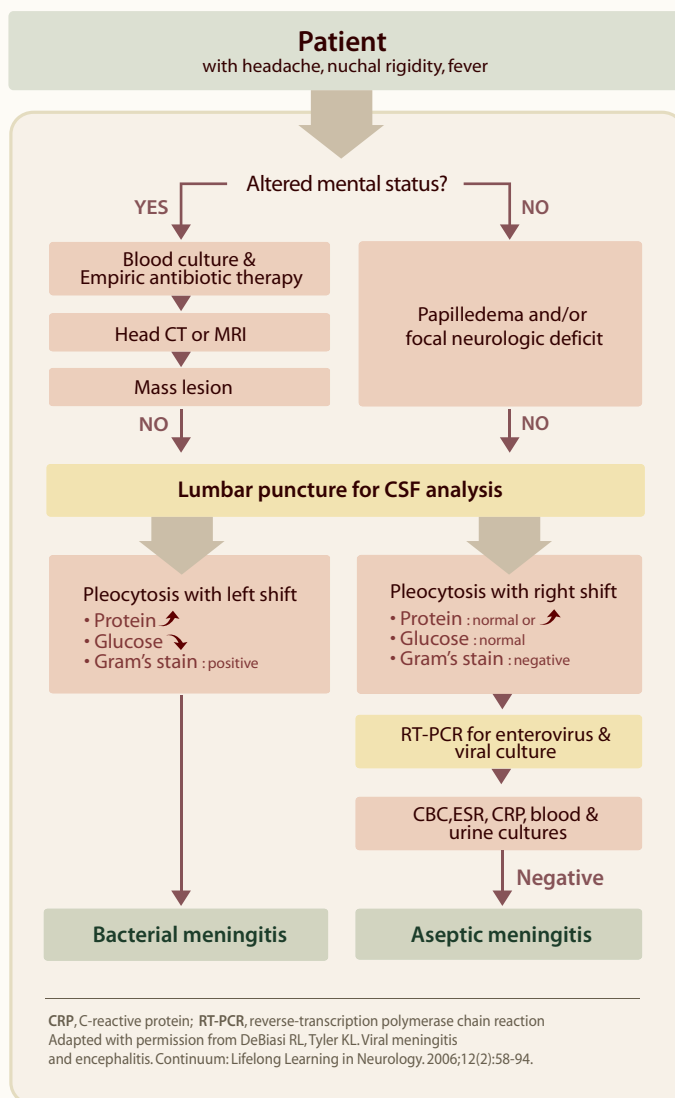
Bacterial meningitis has an incidence of about 20 to 100 cases per 100,000 live births during the newborn period. Aseptic meningitis is even more common. Although most types of aseptic meningitis do not cause serious symptoms, some types result in significant morbidity and mortality if not properly diagnosed and treated.

Early identification of causative bacterial and viral pathogens is important for prompt and proper treatment of meningitis and for prevention of life-threatening clinical outcomes.^{1, 2}

Seeplex® Meningitis ACE Detection detects viruses and bacteria causing human meningitis from cerebrospinal fluid (CSF).

In meningitis, identification of pathogen as well as early detection is critical for efficient treatment. Current diagnostic methods for meningitis such as CSF culture and Latex agglutination assay have certain limitations such as time factor and low sensitivity. With multiplex PCR system based on DPO™ technology, the Seeplex® Meningitis ACE Detection can detect 7 viruses and 5 bacteria causing meningitis within 6 hours.

Diagnostic Workflow for Meningitis³ vs. Seeplex® Meningitis Multiplex PCR



Viral vs. Bacterial Meningitis^{4,5}

Viral Meningitis

- Caused by viruses
- Less severe
- Resolves without specific treatment within one or two weeks
- Also called aseptic meningitis (e.g., enterovirus)

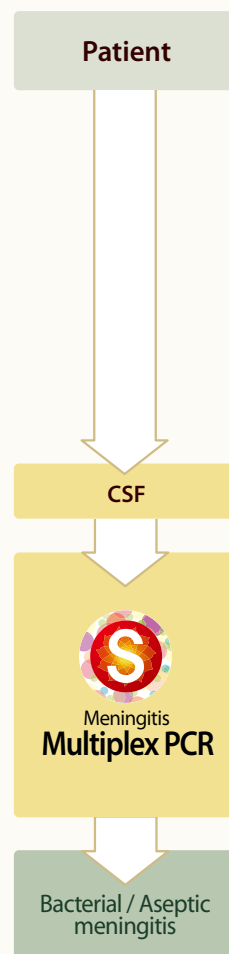
In case of viral meningitis, the main question for the physician is to decide whether to treat or not with antibacterial and/or anti-herpes simplex virus (acyclovir) medication on admission.

In the pediatric population, enteroviruses are the most frequent cause of viral benign meningitis, which requires neither treatment nor extensive investigations.

Bacterial Meningitis

- Caused by bacteria
- Quite severe and may result in
 - a) brain damage
 - b) hearing loss
 - c) learning disability
- May also lead to death.

For bacterial meningitis, it is important to know which type of bacteria is causing the meningitis as prompt treatment with antibiotics can prevent some types from spreading and infecting other people.



References

1. Shin, S. T. et al., 2012, Ann. Lab. Med., 32: 44-49.
2. Norris, C. M. R. et al., 1999, Am. Fam. Physician, 59(10): 2761-2770.
3. Shelburne, C. and Statler, M., 2008, J. Am. Acad. Phys. Assist., 21(4): 54-59.
4. Grimwood, K. et al., 2000, Arch. Dis. Child, 83: 111-116.
5. Rotbart, H. A., 1995, Clin. Infect. Dis., 20: 971-981.

Compatible instrument

PCR

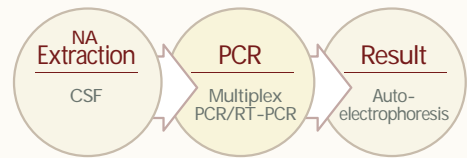
GeneAmp® 9700 (Life Technologies)
SEEAMP™*

Auto-electrophoresis

ScreenTape® System (Agilent)
MCE®-202 MultiNA (SHIMADZU)
LabChip® Dx (Caliper)*

* The utilization of the Seeplex® Meningitis ACE Detection is not CE approved for use on this instrument.

Process



Analyte

Meningitis-V1 ACE Detection

- HSV1
- HSV2
- VZV (HHV3)
- EBV (HHV4)
- CMV (HHV5)
- HHV6

Meningitis-V2 ACE Detection

- Enterovirus

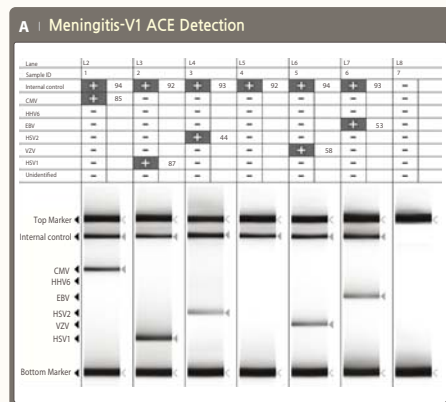
* Meningitis virus 2 panel covers Poliovirus, Echovirus, and Coxsackievirus.

Meningitis-B ACE Detection

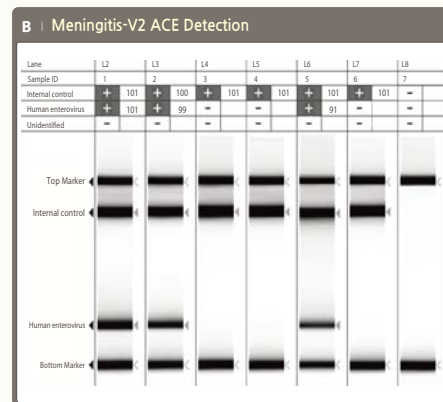
- *Streptococcus pneumoniae*
- *Neisseria meningitidis*
- *Haemophilus influenzae* type b
- *Listeria monocytogenes*
- Group B Streptococcus (*Streptococcus agalactiae*)

Result

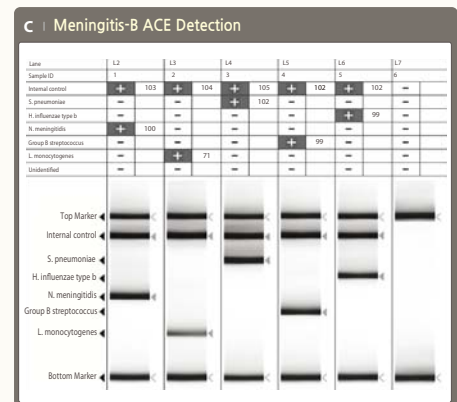
Amplified PCR products using Seeplex® Meningitis ACE Detection and result analysis (Rapid & easy interpretation using ScreenTape® System)



1~6: Clinical samples, 7: Negative control



1~6: Clinical samples, 7: Negative control



1~5: Clinical samples, 6: Negative control

Related publication

1. So Youn Shin, et al. Evaluation of the Seeplex® Meningitis ACE Detection Kit for the Detection of 12 Common Bacterial and Viral Pathogens of Acute Meningitis, Ann Lab Med, 2012;32:44-49.

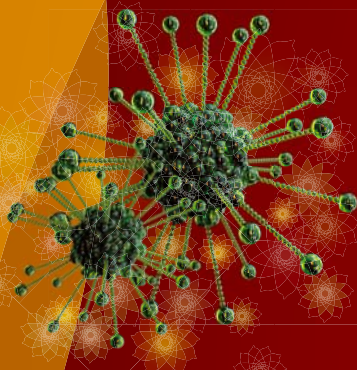
Product

	Cat. No.	Size
Meningitis ACE Detection Set* (V2.0)	MG6000Y	50 rxns
Meningitis-V1 ACE Detection (V2.0)	MG6611Y	50 rxns
Meningitis-V2 ACE Detection (V2.0)	MG6111Y	50 rxns
Meningitis-B ACE Detection (V2.0)	MG6501Y	50 rxns

*Note: Seeplex® Meningitis Products are available for each individual sale.



Seeplex®



Simultaneous Multiple Detection

Molecular Diagnostics
Automatic Detection
DPO™-based Multiplex PCR



Seegene, Inc.

Taewon Bldg., 65-5, Bangyi-Dong, Songpa-Gu, Seoul, Korea
TEL : +82-2-2240-4000, FAX : +82-2-2240-4046
E-mail: korea@seegene.com

Seegene USA

9801 Washingtonian Blvd. Suite 290, Gaithersburg, MD 20878, U.S.A.
TEL : +1-301-762-9066, FAX : +1-301-762-9088
E-mail: usa@seegene.com

Seegene Germany

Ludwig-Erhard Str. 30-34, D 65760, Eschborn, Germany
TEL : +49 (0) 6196-769-3468, FAX : +49 (0) 6196-769-4137
E-mail: eu@seegene.com

www.seegene.com

Not Available in U.S.