Rapid pathogen Identification

- Directly from whole blood within 7 hours
- Covers 99% of all sepsis relevant pathogens / 34 bacteria, 7 fungi, 5 resistances
- Proprietary sample preparation for high sensitivity
- Internal process control for valid results

DECODING SEPSIS
The challenges in sepsis diagnostics

Sepsis is one of the main causes of death in hospitalized patients. Initiation of the right antibiotic regime early is a major challenge that significantly determines the course and prognosis of the septic patient.

Early information for targeted antibiotic therapy

Today’s gold standard technique for pathogen detection relies on blood cultures, taking 2-3 days to produce results, and is only effective for 15% of infected cases. In addition, blood culturing cannot detect non-cultivable pathogens, may miss low abundance pathogens and requires patient samples to be free from anti-infective agents.

VYOO® identifies targets specific for sepsis: 34 bacteria, 7 fungi and 5 resistances

<table>
<thead>
<tr>
<th>Bacteria Gram-positive</th>
<th>Streptococcus pneumoniae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clostridium perfringens</td>
<td>Streptococcus pyogenes</td>
</tr>
<tr>
<td>Enterococcus faecalis</td>
<td>Streptococcus sanguinis</td>
</tr>
<tr>
<td>Enterococcus faecium</td>
<td>Bacteria Gram-negative</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>Acinetobacter baumannii</td>
</tr>
<tr>
<td>Staphylococcus epidermidis</td>
<td>Bacteroides fragilis</td>
</tr>
<tr>
<td>Staphylococcus haemolyticus</td>
<td>Burkholderia cepacia</td>
</tr>
<tr>
<td>Staphylococcus hominis</td>
<td>Enterobacter aerogenes</td>
</tr>
<tr>
<td>Staphylococcus saprophyticus</td>
<td>Enterobacter cloacae</td>
</tr>
<tr>
<td>Streptococcus agalactiae</td>
<td>Escherichia coli</td>
</tr>
<tr>
<td>Streptococcus bovis</td>
<td>Haemophilus influenzae</td>
</tr>
<tr>
<td>Streptococcus dysgalactiae</td>
<td>Haemophilus influenzae (CTb)</td>
</tr>
<tr>
<td>Streptococcus mutans</td>
<td>Klebsiella oxytoca</td>
</tr>
</tbody>
</table>

Bacteria Gram-positive
Streptococcus pneumoniae
Klebsiella pneumoniae
Candida dubliniensis
Clostridium perfringens
Streptococcus pyogenes
Morganella morganii
Candida glabrata
Enterococcus faecalis
Streptococcus sanguinis
Neisseria meningitidis
Candida krusei
Enterococcus faecium

Bacteria Gram-negative
Proteus mirabilis
Candida parapsilosis
Staphylococcus aureus
Acinetobacter baumannii
Pseudomonas aeruginosa
Candida tropicalis
Staphylococcus epidermidis
Bacteroides fragilis
Serratia marcescens

Resistances
Staphylococcus haemolyticus
Burkholderia cepacia
Stenotrophomonas maltophilia
vancomycin vanA
vancomycin vanB

β-lactamase blaSHV *
β-lactamase blaCTX-M *

Covers 99% of sepsis relevant species plus major resistances
Unaffected by antibiotic pre-treatment
Automated array readout

VYOO* provides an innovative diagnostic tool that overcomes the deficiencies of conventional blood cultures.

fungi and 5 resistances
Klebsiella pneumoniae
Candida dubliniensis
Morganella morganii
Candida glabrata
Neisseria meningitidis
Candida krusei
Proteus mirabilis
Candida parapsilosis
Pseudomonas aeruginosa
Candida tropicalis
Serratia marcescens
Resistances
Stenotrophomonas maltophilia
methicillin mecA
Prevotella buccae
vancomycin vanA
Prevotella intermedia
vancomycin vanB
Prevotella melaninogenica
β-lactamase blaSHV *
Fungi
β-lactamase blaCTX-M *
Aspergillus fumigatus
*Candida albicans

VYOO® provides an innovative diagnostic tool that overcomes the deficiencies of conventional blood cultures.

Confidently select optimal treatment

Fast, reliable results from VYOO*, together with other clinical indications, help clinicians to determine the most effective anti-infective therapy, benefiting the patient as well as reducing overall costs and treatment times.

In addition, positive identification of bacterial pathogens and characterization of their antibiotic resistance can help to prevent the emergence of resistant micro-organisms.
For questions about our sepsis diagnosis products please contact:

Analytik Jena AG
Life Science
Konrad-Zuse-Strasse 1
07745 Jena/Germany
Phone: +49 (0) 3641 77-97 00
Fax: +49 (0) 3641 77-76 9700
E-Mail: lifescience@analytik-jena.com

Find more documents about VYOO® and its application on www.sepsis-diagnosis.com or order further information by contacting lifescience@analytik-jena.com.

VYOO® is a multiplex PCR assay with a unique patented pathogen enrichment technology that rapidly identifies sepsis causing bacteria and fungi and the antibiotic resistances with high sensitivity and specificity. Within 7 hours of a blood sample reaching the lab, VYOO® can guide antibiotic therapy.

VYOO® is approved for In-Vitro-Diagnostic use according to IVD Directive 98/79/EC. VYOO® is a registered trademark of Analytik Jena AG.