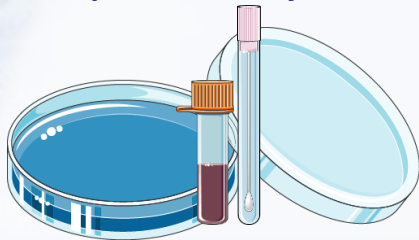# DeepChek® Assay 16S rRNA Bacterial Identification

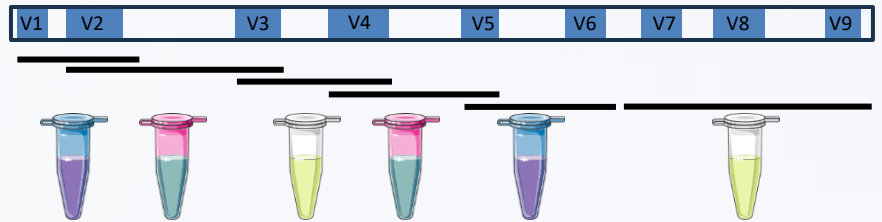## High-resolution Bacterial Identification through Next Generation Sequencing

The **16S rRNA gene** contains nine hypervariable regions (V1–V9) and is the universal phylogenetic marker and gold standard for identifying taxonomic units by sequencing. Microbiome studies combine at least two sequenced regions (for instance, many previous studies targeted V3–V4) to increase the resolving power for bacteria identification.

The **ABL Diagnostics** solution enables the amplification, sequencing and downstream analysis of all nine hypervariable regions of the 16S rRNA gene for bacterial species identification.

The DeepChek® Assay 16S rRNA Bacterial Identification enables the amplification of V1-V9.

Bacterial DNA from culture or direct specimen

Six PCR-reactions with single PCR-protocol to amplify the whole 16s rRNA region.

The **DeepChek® Assay 16S rRNA Bacterial identification (RUO)** utilizes PCR technology for amplifying relevant portions of the prokaryotic 16S ribosomal RNA (16S rRNA) gene from input extracted DNA.

This technique aids in the identification or phylogenetic classification, often down to the genus and species level in diverse microbial populations.

- Covered regions: complete 16S rRNA gene for V1-V9
- Specimen: Culture, sputum, cerebrospinal fluid, ascitic fluid, synovial fluid, pleural fluid, cardiac and articular biopsy, otitis media with effusion (OME) and other sample types.
- Sequencing platforms: NGS
- Reference and Marking: 131B24 RUO

The MicrobioChek® Software enables the automated analysis of NGS sequencing data and the identification of bacteria.
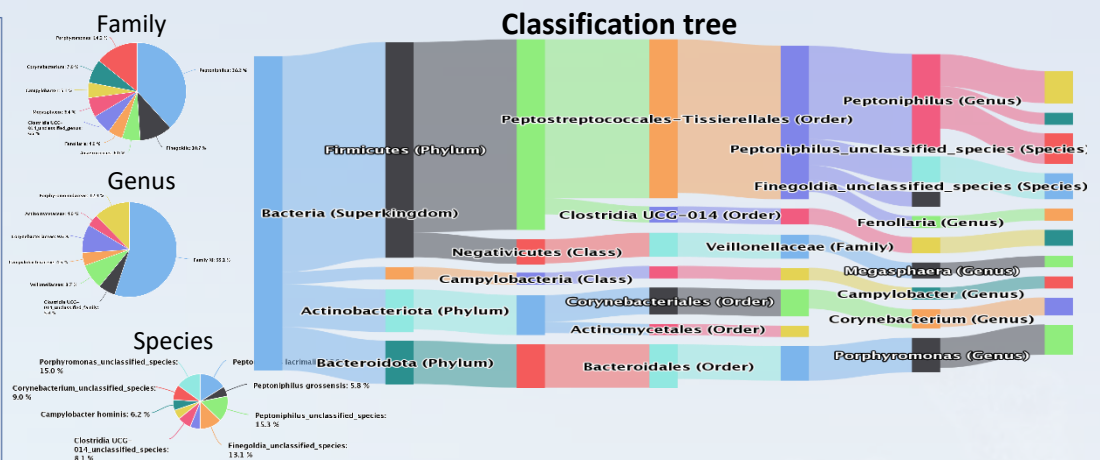
The **MicrobioChek® Software** is a downstream web-based application intended for the upload, storage, analysis and interpretation of bacterial pre-formatted sequencing data generated from Next Generation Sequencing (NGS) to obtain bacterial sequence analysis and identification.

- End-to-End Solutions for Bacterial Identification
- No preprocessing needed!
- Fast processing of raw data from different platforms
- Customer-friendly interface
- Continuous update and support for database and algorithm

Improving Disease Management

ABL Advanced Biological Laboratories — Diagnostics

DeepChek® NGS LIBRARY PREPARATION

The DeepChek® NGS Library Preparation Assay is suited for low and high-throughput NGS library construction workflows that require fragmentation (*if applicable*), end repair, A-tailing, adapter ligation and library amplification. It is designed for library construction from a wide range of sample types, including complex, genomic DNA; low-complexity samples such as small viral genomes, plasmids, cDNA and long amplicons; and low-quality DNA such as FFPE samples. Libraries generated by this procedure can be used for Next Generation Sequencing (NGS) on different Illumina platforms.

| STREAMLINED	• Fast library construction process
FLEXIBLE	• Compatible with genomes of different species
EFFICIENT	• Generate high-quality DNA libraries with high yields
RELIABLE	• Excellent raw data coverage and uniformity

Flexible Pooling & Multiplexing

The DeepChek® assays & software permit NGS-multiplexing for simultaneous sample sequencing, providing high efficiency, lower NGS sequencing costs, and better turnaround time.
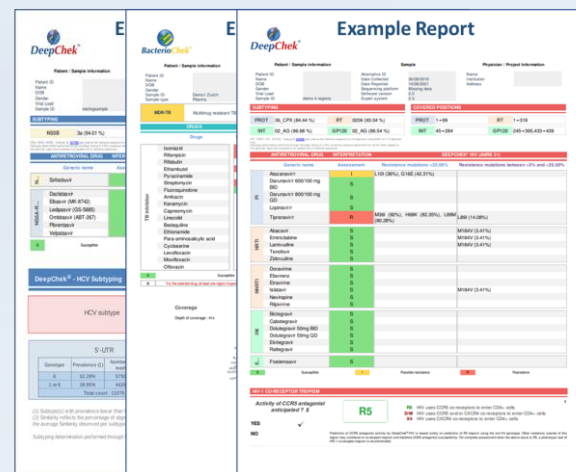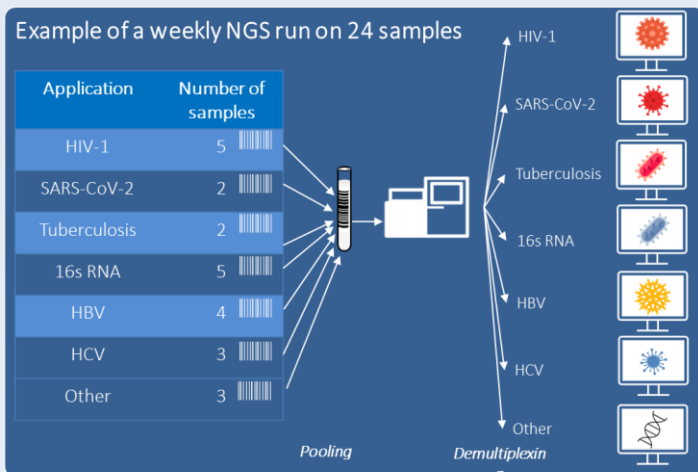
Ordering Information

Product	Reference	Pack size	Version
DeepChek® Assay 16S rRNA Bacterial Identification	131B24	24 reactions	RUO
DeepChek® NGS LIBRARY PREPARATION	116B24	24 reactions	RUO
DeepChek® ADAPTERS	124B24	24 reactions	RUO
DeepChek® NGS Clean-up beads	N411-02	60 ml	RUO
MicrobioChek® - Software (Taxonomy / 16S) License	S-19-MBCK (L16)		RUO

Certain sections may make reference to trademarks of third parties not affiliated with ABL. Such trademarks are the property of their respective owners, and any reference to them does not imply an endorsement or association between ABL and the respective owners.

For Research Use Only (RUO): not for use in diagnostic procedures, no claim or representation is intended to provide information for the diagnosis, prevention, or treatment of disease.

ABL Diagnostics S.A.
72c, rue de Thionville
57140, WOIPPY France

contact@abldiagnostics.com
https://www.abldiagnostics.com
Phone : + 33 (0)7 83 64 68 50

CERTIFICATE OF ANALYSIS

Product Name/Description	**DeepChek® NGS Clean-up beads (60 mL)**
Cat. #	**N411-02**
Lot #	**7E703K3**
Serial number #	from **NA** to **NA**
Storage Conditions	**-20 DEGREES CELSIUS (°C)**
Shipping conditions	**GEL PACK**
Expiration Date (YYYY-MM)	**2025-11**
Manufacturing Date (YYYY-MM-DD)	**2024-03-21**
Package Size	**NA**
Country of Origin	**FRANCE**
Manufacturer	**ABL SA**
Dangerous goods classification	**NA**
Luminosity	**NO NEED TO BE PROTECTED FROM LIGHT**
Humidity	**25-80%**
Primary packing	**POLYPROPYLENE MICROTUBES 0.5mL and 1.5mL**
Package Contents	**1. DeepChek® NGS Clean-up beads (60 mL)**
Product Documentation	**DOCUMENTS AVAILABLE UPON REQUEST**
Quality Control	
	Test items, specification and results are in accordance to our specificity
It is certified that this product meets above specifications.	
Qualified and authorized product inspector	

Name // Title	Electronic Signature
Maude Dubois	
Production manager	

EURO-QUALITY SYSTEM France
14 Avenue de l'Europe
77144 MONTEVRAIN

CERTIFICATION SOCIETY

CERTIFICATE
ISO 13485 : 2016

N° Certificate : 221013/1551F

We hereby declare that, on the basis of the dossier of certification, and further to the audit undergone successfully, the company :

Advanced Biological Laboratories (ABL SA) - Luxembourg

Site : ABL Diagnostics S.A

33 Chemin de l'Argile

13010 Marseille, France

has been certified on

7th October 2022

In accordance with the ISO 13485 standard for a period of 3 years in the following fields

- **Design, development, production, distribution, training and support of in-vitro diagnostic medical devices.**
- **Distribution of medical devices.**

and has the right to use this certificate in the fields described before

General Management
Henry CHARLIER

General Management
Christian STIEVENART

Paris,19th October 2022