

## KIT FOR *IN VITRO* DIAGNOSIS OF EUBACTERIA

### Onar®*EUB*

The first PCR assay called Onar®*EUB* has been developed for accurate and reliable *in vitro* diagnosis of bacteria. The kit provides laboratories with a simple and rapid means to confirm eubacteria infection in various *in situ* biologicals including cell cultures.

### Validate Your Experimental Results

Frequent screening of cell cultures for eubacteria and mycoplasma contamination is critical for reliable results. In addition to the Eubacteria Detection Kit, Minerva Biolabs offers detection kits for mycoplasma and viruses for conventional and real-time applications.

### Background

#### Bacteria Contamination is Common.

Bacteria are frequently found as contaminants in cell cultures. Studies have identified an overall 6.5% incidence of static bacterial contamination of cell cultures examined. Thus, many cell cultures lack visual signs of bacterial contamination, generally indicated by decoloration of the fluid. Moreover, it has been demonstrated that standard antibiotics not only are ineffective against resistant bacterial infection but also have a strong impact on the metabolism, cell growth & differentiation.

### Benefits of Onar®*EUB*

**Sensitive:** Detection with fewer than 12 (e.g. *Bacillus subtilis*) genomes per sample volume.

**Specific:** Detection of more than 45 eubacteria species: *Actinomyces*, *Bacillus*, *Enterococcus*, *Escherichia coli*, *Fusobacterium*, *Klebsiella*, *Lactobacillus*, *Micrococcus*, *Mycobacterium*, *Peptostreptococcus*, *Pseudomonas*, *Porphyromonas*, *Prevotella*, *Salmonella*, *Serratia*, *Staphylococcus*, *Streptococcus*, etc.

**Reliable:** The kit contains positive control DNA, and an internal control to eliminate the possibility of false-negative results.

**Rapid:** The whole procedure can be completed in about 3.5 hours. Hands-on time less than 40 min.

**Convenient:** The reagents are pre-aliquoted for 25 reactions for convenient periodic or routine testing.

**Ease of Use:** Easy analysis by comparison with the positive control.

### Test Principle

Onar®*EUB* utilizes the polymerase chain reaction (PCR), thereby providing the highest sensitivity for the detection of eubacteria contamination in cell cultures and other cell culture derived biologicals. Detection requires as little as 12 eubacteriae genomes per sample volume. The primer set is specific to the 16S ribosomal RNA coding region in the eubacteriae genome. This allows for detection of all eubacteria species tested thus far and usually encountered as airborne contaminants in cell cultures. Eukaryotic DNA is not amplified by Onar®*EUB*. Only one protocol is

needed for the detection of eubacteria species, and can be completed within 3.5 hours. Onar®*EUB* also provides internal control DNA to assure successfully executed reactions. Onar®*EUB* should be performed only with *EUB*-Polymerase. In principle the kit can be performed with any polymerase. However, polymerases of different manufacturers can be contaminated with bacterial DNA leading to false-positive results. Therefore we strictly recommend the use of only DNA-free polymerase (Cat. No.: 54-0100).

### **Kit Components**

- primer sets and nucleotides at optimized concentrations
- positive control for easy result verification
- internal control to ensure accurate testing
- instruction manual
- storage box
- Certificat of Analysis (CoA)