

## Specification

### PCR Mycoplasma Test Kit

**A3744**

<b>Product Code:</b>	A3744
<b>Product Name:</b>	PCR Mycoplasma Test Kit
<b>Specifications:</b>	<ul style="list-style-type: none"> <li>: ♦ Ready-to-use PCR Mix for the detection of mycoplasma in cell culture</li> <li>: ♦ detects all of mycoplasma species found in cell cultures</li> <li>: ♦ for 20 tests</li> <li>: ♦ Kit components</li> <li>: • Reaction mix</li> <li>: • Buffer solution</li> <li>: • Positive template control</li> </ul>
<b>WGK:</b>	1
<b>Storage:</b>	<p>-20°C</p> <p>Avoid repeated changes in the reaction mix temperature</p> <p>When in use, always keep the reaction mix on ice!</p>
<b>Shipment:</b>	wet ice in Germany, dry ice to abroad
<b>CS:</b>	38220000
<b>Comment</b>	<p>The <i>PCR Mycoplasma Test Kit</i> is designed to detect the presence of mycoplasma contaminating biological materials, such as cultured cells. Mycoplasma detection by the direct culture procedure is time-consuming and some mycoplasma species are difficult to cultivate. With PCR testing, results are obtained within a few hours, since the presence of contaminant mycoplasma can be easily detected simply by verifying the bands of amplified DNA fragments in electrophoresis. There is no need to prepare probes labeled with radioisotopes, or to calculate enzyme, dNTP's or buffer concentrations. Instead, a <i>ready-to-use</i>, optimized PCR mix is supplied. The primer set allows detection of various mycoplasma species (<i>M. fermentans</i>, <i>M. hyorhinis</i>, <i>M. arginini</i>, <i>M. orale</i>, <i>M. salivarium</i>, <i>M. hominis</i>, <i>M. pulmonis</i>, <i>M. arthritidis</i>, <i>M. bovis</i>, <i>M. pneumoniae</i>, <i>M. pirum</i>, <i>M. capricolum</i>) as well as <i>Acholeplasma</i> and <i>Spiroplasma</i> species, with high sensitivity and specificity. <b>Principle</b>: rRNA gene sequences of prokaryotes, including mycoplasmas, are well conserved, whereas, the lengths and sequences of the spacer region in the rRNA operon (for example the region between 16S and 23S gene) differ from species to species. The detection procedure utilizing the PCR process with this primer set consists of 1.) Amplification of a conserved and mycoplasma-specific 16S rRNA gene region using two primers. 2.) Detection of the amplified fragment by agarose gel electrophoresis. This system does not allow the amplification of DNA originating from other sources, such as cultured cells or bacteria, which affect the detection result. Amplification of the gene sequence with PCR using this primer set enhances not only the sensitivity, but also the specificity of detection. Amplified products are then detected by agarose gel electrophoresis.</p>

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**Bibliography**

(1) Rottem, S. & Barile, F.M. (1993) *TIBTECH* **11**, 143-150