Microbiology - the cause of 95% of food safety issues

Microorganisms are of great significance to foods for several reasons. The most significant one is that they can cause spoilage of foods and can also be applied to manufacture a wide variety of food products, as well as cause microbial diseases transmitted by foods.

According to world food safety market research and statistics, 95% of the issues in food safety is caused by microbiology.

Detection, identification and enumeration of these foodborne microorganisms are of great importance. From general food hygiene to pathogens enumeration, it is necessary and urgent to make sure that the foods are safe for human consumption.

Foods can be considered as a medium for microbial growth. Considering the vast array of sources, substances, and methods with which food is produced, practically every kind of microbe is a potential contaminant.

Conventional detection of pathogenic bacteria is mainly based on cultivation procedures, which use enrichment broths followed by the isolation of colonies on selective media, biochemical identification and confirmation of pathogenicity. This culture method is selective for the search of one type of pathogen at a time. Currently, both ISO and AOAC official methods are based on these principles.

Here at Ringbio, we have successfully developed many new microbiology count plate - based on selective medium to enumerate the food microorganisms in various samples. In this leaflet, you will find the details and ordering information.

We guarantee you a rapid, sensitive, reliable, reproducible result.
Microbial Count Plates

**Readily-Usable Microbiology Enumeration Medium Plate**

- No more culture medium preparation
- No extra reagent required
- Less time & less labor work
- ISO & AOAC standards compatible

**1-24-C Easy Determination**

1ml Sample Suspension

1ml of solid sample suspension or 1ml liquid sample in PBS, adjust the pH to neutral.

24h Incubation

Incubate at 36 °C for 22 - 24h.

Check the result

Enumerate the colonies according to the kit instruction manual. Further identification can be performed if necessary.

<table>
<thead>
<tr>
<th>Product #</th>
<th>Description</th>
<th>Result</th>
<th>Incubation</th>
</tr>
</thead>
<tbody>
<tr>
<td>KGR001</td>
<td>Aerobic Count Plate</td>
<td>Red colony</td>
<td>36±1°C, 48±2h</td>
</tr>
<tr>
<td>KGR002</td>
<td>Staph Count Plate</td>
<td>Dark purple red colony</td>
<td>36±1°C, 24±2h</td>
</tr>
<tr>
<td>KGR003</td>
<td>Pivot E. coli / Coliform Count Plate</td>
<td>Blue purple colony</td>
<td>36±1°C, 24±2h</td>
</tr>
<tr>
<td>KGR004</td>
<td>Pivot Coliform Count Plate</td>
<td>Green colony</td>
<td>36±1°C, 24±2h</td>
</tr>
<tr>
<td>KGR005</td>
<td>Listeria Count Plate</td>
<td>Blue green colony</td>
<td>36±1°C, 24±2h</td>
</tr>
<tr>
<td>KGR010</td>
<td>Coliform Count Plate</td>
<td>Red colony</td>
<td>36±1°C, 18-24h</td>
</tr>
<tr>
<td>KGR011</td>
<td>E. coli / Coliform Count Plate</td>
<td>Blue purple &amp; red colony</td>
<td>36±1°C, 18-24h</td>
</tr>
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Ring Biotechnology Co Ltd
Readily-Usable Microbiology Enumeration Medium Plate

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<td>KGR013</td>
<td>Bacillus Cereus Count Plate</td>
<td>Purple red colony</td>
<td>36±1°C, 48±2h</td>
</tr>
<tr>
<td>KGR015</td>
<td>Salmonella Count Plate</td>
<td>Purple red colony</td>
<td>36±1°C, 24±2h</td>
</tr>
<tr>
<td>KGR016</td>
<td>Enterobacteriaceae Count Plate</td>
<td>Red colony</td>
<td>36±1°C, 18-24h</td>
</tr>
<tr>
<td>KGR017</td>
<td>Geobacillus s. Count Plate</td>
<td>Red colony</td>
<td>55±1°C, 36±1h</td>
</tr>
<tr>
<td>KGR018</td>
<td>Enterococcus f. Count Plate</td>
<td>Black &amp; black green colony</td>
<td>36±1°C, 26±2h</td>
</tr>
<tr>
<td>KGR019</td>
<td>Bacillus Psychrophilus Count Plate</td>
<td>Red colony</td>
<td>21±1°C, 48-60h</td>
</tr>
<tr>
<td>KGR024</td>
<td>Aerobic Bacillus Count Plate</td>
<td>Red colony</td>
<td>36±1°C, 24±2h</td>
</tr>
<tr>
<td>KGR026</td>
<td>Listeria m. Count Plate</td>
<td>Blue green colony</td>
<td>36±1°C, 36h</td>
</tr>
</tbody>
</table>

More products are being developed for microbiology testing in food and beverage industry.
Aerobic Count Plate

Product Code: KRG001 12 plates / pack

*KangarooSci®* Aerobic Count Plate (ACP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of aerobic colonies after 48h – 72h incubation. The result is consistent with the corresponding ISO standards and other commercial counting plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

This KangarooSci® Aerobic Count Plate is applicable for the counting of as many as 65 aerobic bacteria. All will produce red colonies for counting, regardless of the size and clarity.

The following bacteria has been tested successfully with this count plate:
- ATCC 8099, CICC 10305, ATCC 25922, CICC 10003, CICC 10389, CICC 10907, CICC 21530, CICC 10667, CICC 24190, CICC 24186, CICC 24188, CICC 24187, ATCC 25955, ATCC 10031, ATCC 13883, ATCC 13048, ATCC 29544, ATCC 25931, ATCC 12022, CICC 10865, CICC 23829, CICC 21534, CICC 21535, ATCC 9207, ATCC 15947, ATCC 51114, ATCC 43864, ATCC 25405, GDMCC 1.163, ATCC 13311, CICC 21501, CICC 21495, CICC 21512, CICC 21501, ATCC 27511, ATCC 33291, ATCC 43478, CICC 10869, ATCC 19433, ATCC 19258, CICC 20247, ATCC 8014, CICC 6009, ATCC 6538, ATCC 25923, CICC 10384, ATCC 27217, ATCC 12228, CMCC 26069, CICC 21602, ATCC 8032, ATCC 33090, ATCC 19111, ATCC 35967, ATCC 19119, ATCC 35897, ATCC 25401, CICC 20483, CICC 21261, ATCC 11778, ATCC 6633, CICC 10071, etc.
Staphylococcus aureus Count Plate

Product Code: KRG002                      12 plates / pack

KangarooSci® Staphylococcus aureus Count Plate is a sample-ready-culture medium system which contains readymade Baird-Parker medium, a cold-water-soluble gelling agent indicator and selective inhibitor. It can be used in direct counting of staphylococcus aureus colonies after 24h incubation. The result is consistent with ISO standards and commercial counting plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

Incubate the plates at 36±1 °C for 24±2 hours.

For aquatic products, please incubate at 30±1 °C for 72±3 hours for. Up to 6 plates can be stacked in one incubation holder.

On this KangarooSci® Staphylococcus aureus count plate, Staphylococcus aureus is red colonies, other staphylococcus is light pink green or colorless colonies. Majority of gram-negative and other gram-positive bacterium cannot grow in this plate, or they can present as blue colonies.
Pivot E. coli/Coliform Count Plate

Product Code: KRG003                      12 plates / pack

KangarooSci® Pivot E. coli/Coliform Count Plate (ECCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of E. coli and Coliform colonies after 24h incubation.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

Incubate the plates at 36±1 °C for 24±2 hours. Up to 6 plates can be stacked in one incubation holder.

**Counting of Coliform:** Count colonies within 15-150 CFU. All red or blue colonies shall be counted regardless of the size or intensity.

**Counting of E. coli:** Count colonies within 10-100 CFU. All blue colonies shall be counted regardless of the size or intensity.
Microbial Count Plates

Pivot Coliform Count Plate

Product Code: KRG004                      12 plates / pack

*KangarooSci*® Pivot Coliform Count Plate (CCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of coliform colonies after 24h incubation. The result is consistent with the corresponding ISO standards and other commercial counting plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

Sample Preparation Sampling Incubation Enumeration

This *KangarooSci*® Pivot Coliform Count Plate (CCP) can be used in the quantitative plating of Coliform Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All green colonies shall be counted regardless of the size or intensity. Count colonies within 15-150 CFU, count all the green colonies.

Ring Biotechnology Co Ltd  March 2022, KangarooSci@ringbio
**Listeria Count Plate**

Product Code: KRG005                      12 plates / pack

*KangarooSci* Aerobic Count Plate (ACP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of aerobic colonies after 48h – 72h incubation. The result is consistent with the corresponding ISO standards and other commercial counting plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

This *KangarooSci* Listeria Count Plate can be used in the quantitative plating of Listeria Colonies in the food, food material, water and production environment.

Quantitative counting of the plate can be done by a standard colony counter or by software. All green colonies shall be counted regardless of the size or intensity. Count colonies within 30-200 CFU, count all the green colonies.
Coliform Count Plate

Product Code: KRG010  12 plates / pack

*KangarooSci*® Coliform Count Plate is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of coliform colonies after 18h – 24h incubation. The result is consistent with the corresponding ISO standards and other commercial counting plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

Sample Preparation  Sampling  Incubation  Enumeration

This *KangarooSci*® Coliform Count Plate can be used in the quantitative plating of Coliform Colonies in the food and beverage industries.

Incubate the plates at 36±1 °C for 18-24 hours. Up to 6 plates can be stacked in one incubation holder.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity. Count colonies within 15-150 CFU, count all the red colonies.
E. coli/Coliform Count Plate

Product Code: KRG011                      12 plates / pack

*KangarooSci*® E. coli/Coliform Count Plate is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of E. coli/Coliform colonies after 18-24h incubation. The result is consistent with the ISO standards and other commercial plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

This *KangarooSci*® E. coli/Coliform Count Plate can be used in the quantitative plating of E. coli/Coliform Colonies in the food and beverage industries.

Coliform can grow in this plate, Escherichia Coli are **blue colonies** associated with gas bubble, Klebsiella pneumonia and enterobacter cloacae are **red colonies** associated with gas bubble, Citrobacter are **red colonies** without gas bubble. Other gram-negative bacterium (Salmonella, Shigella) can grow in this plate, their colonies are red without gas bubble. Enterobacter Sakazakii can grow in this plate, its colonies are red associated with gas bubble.
**Bacillus cereus Count Plate**

Product Code: KRG013 12 plates / pack

*KangarooSci*® Bacillus cereus Count Plate (BCCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Bacillus cereus colonies after 24h incubation. The result is consistent with the corresponding ISO standards and other commercial counting plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

Sample Preparation  Sampling  Incubation  Enumeration

This *KangarooSci*® Bacillus cereus Count Plate (BCCP) can be used in the quantitative plating of Bacillus cereus Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All purple red colonies shall be counted regardless of the size or intensity. Count colonies within 20-200 CFU, count all the purple red colonies.
Salmonella Count Plate

Product Code: KRG015                     12 plates / pack

*KangarooSci*® Salmonella Count Plate (SCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Salmonella colonies after 24h incubation. The result is consistent with the corresponding ISO standards and other commercial counting plates.

Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.

**Sample Preparation**

**Sampling**

**Incubation**

**Enumeration**

This *KangarooSci*® Salmonella Count Plate (SCP) can be used in the quantitative plating of Salmonella Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All purple red colonies shall be counted regardless of the size or intensity. Count colonies within 30-200 CFU, count all the purple red colonies.
The new generation of

Microbial Count Plate

For additional information, please contact us.

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