

Something Different.

**WATSON** BIO LAB  
MADE IN JAPAN SINCE 1988



Space  
saving!

No  
Refrigeration  
Required  
Normal Room  
Temperature  
Preservation

# Microbial Preservation Plate

96Well

Under normal temperature and pressure

**Our record preservation time  
is 5 years**

\*Preservation time varies depending on sample type.

Preserve  
microbial strains  
ALIVE!

● **Dramatic savings per chip!**

● **Made from Polypropylene - it is easy to cut !**

● **Convenient well layout to match  
your 96 well plate!**

## Features:

Microbial strains such as *E.coli* and yeast can be dry-preserved on a paper chip coated with a preservation agent.

Samples can be sealed individually with an accessory protection seal to prevent contamination and inactivation.

This enables compact and efficient preservation at normal room temperature - it is no longer necessary to use deep freeze or dry ice for transportation.

Note : When handling the specific pathogens, please act in accordance with the applicable laws and regulations in your county.



**Preservable in file folders,  
saving you storage space!**

Cat. No.	Item		Unit
176-531S	Microbial preservation plate for Bacteria, 96well	<b>Sterilized</b>	5 plates / bag
176-551S	Microbial preservation plate for Fungi, 96well	<b>Sterilized</b>	5 plates / bag

\*Specification is subject to change without notice.

# 3 Features

## 1 Cost reduction!

Dramatic increase in the number of samples that can be preserved per plate.



## 2 Easy to cut as you like!

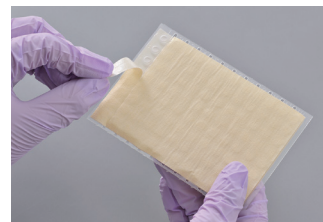
The plate is made from soft PP material that can be easily cut to any required size. It is very convenient when you have more than one type of sample and you need to prevent contamination. Watson preservation plates have a wide range of applications.



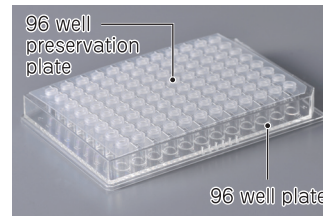
## 3 Convenient well layout that matches your PCR plate's wells.

The plate has a well layout that matches the standardized well position of existing 96 well plates in your lab.

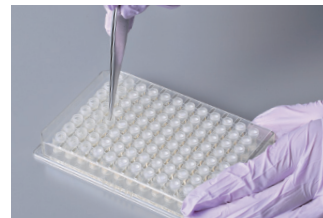
Simply place the plate on your 96 well plate and push the paper chip into it.



① Peel off the protection seal. To peel only select lines, it is easier if you cut the seal in advance using a knife or scissors.



② Place the preservation plate on a 96 well plate.

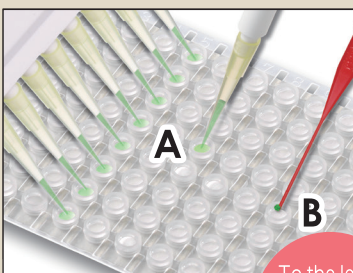


③ Push the paper chips into wells by tweezers etc. You can also use a metal rod with a diameter of 4.5 mm, which is the same diameter of wells on the preservation plate.



④ Culture samples.

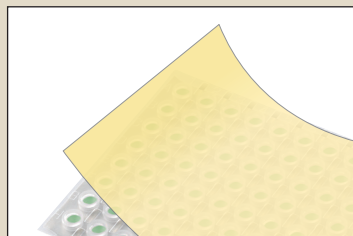
### Preservation Method



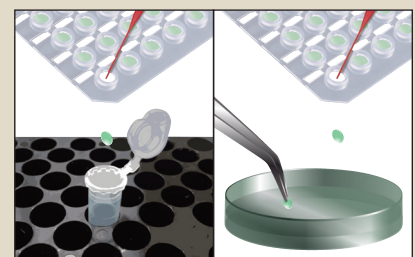
① Let the paper chip absorb a liquid sample.  
A: For a liquid sample  
B: For a sample from agar

To the level  
5μL of solution  
volume per well

- ② Dry the sample. (Dry for at least 60 mins. Reduced pressure drying is recommended.)
- ③ Seal the plate with the protection seal and store it in room temperature.



### Recovery Method



- ① Peel off the protection seal.
- ② Place the paper chip into a container.
- ③ In the case of agar, rub the paper chip onto agar.

Note: When handling the specific pathogens, please act in accordance with the applicable laws and regulations in your county.

## Q & A

**Q.** Correlation between preservation time and storage temperature?

**A.** Please store at the lower temperature for longer preservation. Some samples can be stored at the normal temperature if it is for short period. Please see our lab data at the back page for your reference.

**Q.** What is the shelf life of the products before unsealing and use?

**A.** 1 year after the manufacturing date.

**Q.** Can I store the unsealed product ?

**A.** Please do not store the unsealed product without using it. Sterile condition is lost once it is unsealed. Please unseal the products in a clean bench or a safety cabinet just before the use.

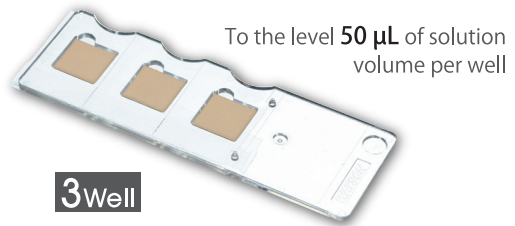
**Q.** Is it better to store the plates at -80°C rather than -20°C ?

**A.** Please avoid storing the products at lower than -20°C. The protection seal may not function under the temperature lower than -20°C.

**Q.** What is the recommended method for storing plates ?

**A.** Bundle 2 plates with a rubber band so that protection seals face to each other and place it in a ziplock bag. This prevents the protection seal from rubbing and getting damaged by another plate.

## Microbial Preservation Plate Product Line



Cat. No.	Item	Unit
176-231S	Microbial preservation plate for Bacteria, 1well <span style="color: red;">Sterilized</span>	5 plates / unit
176-251S	Microbial preservation plate for Fungi, 1well <span style="color: red;">Sterilized</span>	5 plates / unit

Cat. No.	Item	Unit
176-331S	Microbial preservation plate for Bacteria, 3well <span style="color: red;">Sterilized</span>	5 plates / unit
176-351S	Microbial preservation plate for Fungi, 3well <span style="color: red;">Sterilized</span>	5 plates / unit

For preservation of nucleic acid (DNA, RNA) or blood samples....

### Preservation Plate (PVP)

\* Nylon paper chip type

\* Cellulose paper chip type



Preservation Plate has been developed from the study result of MEXT's Intellectual Cluster Formation Project <Tokushima Region Noji group (The University of Tokushima)>. This project is supported by METI's New Cooperation Measure Subsidy.

- Our in-house verification experiments have been implemented in aerobic condition only. For preservation of anaerobic bacteria, please conduct pretest in advance.

- Recommended dry time

(For ambient condition of 23°C, Humidity 50%)

[96 well] 60 minutes or more

[1/3 well] 90 minutes or more

- When handling certain pathogenic samples, please handle it in compliance with pertinent laws.

- Do not use Preservation Plate for other purpose than study.
- Wear gloves and a mask when you operate.
- Preservation Plate is disposable. Do not reuse.
- Do not autoclave.
- Store Preservation Plate avoiding high temperature and humidity after unsealing.

- Please avoid light, dusts, high humidity for sample storage space.
- Preservation time may vary depending on purity and/or storage condition of a sample.
- Conduct half-life test to grasp preservation time.

[Half-life :  $t(1/2) = \ln 2 / \{\ln(100) - \ln(\text{Survival rate after a month})\}$ ]



## Precautions

■ Microbial viability with time in Preservation Plate

No.	Kingdom	Genus Species	JCM No.	0.5		1		3		6		9		12		24		36		48		60	
				-20°C	4°C	RT	37°C	-20°C	4°C	RT	37°C	-20°C	4°C	RT	37°C	-20°C	4°C	RT	37°C	-20°C	4°C	RT	37°C
1		<i>Dehiooccus grandis</i>	6269	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2		<i>Chryseobacterium meningosepticum</i>	21065	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
3		<i>Flavobacterium aquatile</i>	20475	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
4		<i>Sphingobacterium multihorum</i>	21156	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
5		<i>Sphingomonas paucimobilis</i>	7156	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
6		<i>Methylobacterium extorquens</i>	2802	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
7		<i>Alcaligenes faecalis</i>	20522	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
8		<i>Comamonas testosteroni</i>	5832	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
9		<i>Deiftia acidovorans</i>	5833	○	×	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
10		<i>Herbaspirillum seropedicae</i>	21448	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
11		<i>Halomonas halophila</i>	20791	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
12		<i>Pseudomonas aeruginosa</i>	5962	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
13		<i>Azotobacter vinelandii</i>	21475	○	×	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
14		<i>Pseudalteromonas carrageenovora</i>	8851	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
15		<i>Shewanella putrefaciens</i>	20190	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
16		<i>Vibrio proteolyticus</i>	21193	○	×	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
17		<i>Escherichia coli</i>	1649	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
18		<i>Enterobacter aerogenes</i>	1235	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
19		<i>Bacillus subtilis</i>	1465	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
20		<i>Planococcus citreus</i>	2532	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
21		<i>Lactobacillus delibruceki</i> subsp. <i>delibruceki</i>	1012	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
22		<i>Arthrobacter globiformis</i>	1332	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
23		<i>Micrococcus luteus</i>	1464	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
24		<i>Brevibacterium linens</i>	1327	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
25		<i>Cornibacterium glutamicum</i>	1318	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
26		<i>Microbacterium lacticum</i>	1379	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
27		<i>Rhodococcus equi</i>	1311	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
28		<i>Saccharomyces cerevisiae</i>	7255	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
29	Fungi	<i>Schizosaccharomyces pombe</i>	21877	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

## True Bacteria

※ The above data are as of 1.May.2013 and may be subject to update in the future.

※ 2 types of preservation agent of different formulation are used for bacteria and yeast are used in the above experiments.

※ The above data are extracted from our own experiments and not to guarantee the results in other experiments.

Return or exchange of the products caused by the result of preservation are not acceptable.

For more information >>>  
[https://watsonbiolab.com/products/pvp/microbial\\_pvp.html](https://watsonbiolab.com/products/pvp/microbial_pvp.html)

Something Different.



MADE IN JAPAN SINCE 1988

<https://watsonbiolab.com>

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※ The specification and the price etc. of the product might change without a previous notice.