



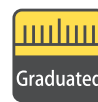
# Tubes

- Microtubes
- Centrifuge Tubes
- Screwcap Tubes
- Cryotubes

# Hyper Microtube



## The Ultimate Microtube



[1.5 mL]  
Material: Polypropylene  
Centrifugal force:  
20,000 xG (water 1.0 mL / 15 minutes)  
With scale (500 / 1000 / 1500  $\mu$ L)  
Flat top (with marking space)  
RNase/DNase/Human-DNA free

[2.0 mL]  
Material: Polypropylene  
Centrifugal force:  
20,000 xG (water 1.5 mL / 15 minutes)  
With scale (500 / 1000 / 1500 / 2000  $\mu$ L)  
Flat top (with marking space)  
RNase/DNase/Human-DNA free



Cat. No.	Item	Unit	Case
131-715C	1.5 mL, Microtube with Locking-Cap, Round Bottom, Hard-Touch, Natural	1000 tubes / bag	10 bags
131-715CS-N	1.5 mL, Microtube with Locking-Cap, Round Bottom, Hard-Touch, Natural <b>Sterilized</b>	500 tubes (10 tubes $\times$ 50 bags)	5 units
131-7155C	1.5 mL, Microtube with Locking-Cap, Round Bottom, Soft-Touch, Natural	1000 tubes / bag	10 bags
131-7155CS-N	1.5 mL, Microtube with Locking-Cap, Round Bottom, Soft-Touch, Natural <b>Sterilized</b>	500 tubes (10 tubes $\times$ 50 bags)	5 units
132-620C	2.0 mL, Microtube with Locking-Cap, Round Bottom, Slight-Stiff-Touch, Natural	1000 tubes / bag	5 bags
132-620CS-N	2.0 mL, Microtube with Locking-Cap, Round Bottom, Slight-Stiff-Touch, Natural <b>Sterilized</b>	500 tubes (10 tubes $\times$ 50 bags)	5 units

## Features



### Locking mechanism

Safety lock system is equipped.  
Hard type and soft type are available.



### Friendly hinge for finger

Rounded and embossed cap-edge  
reduces irritation to the finger, and  
makes it easier to close the cap.



### Scale

The volume is easily recognized with  
the scale for each 0.5 mL described on  
the tube.



### Contamination prevention

Lock part prevents the thumb from  
touching the inner cap when opening  
and closing.



### Unique shape of cap

Easy opening cap with less force. Flat  
cap allows marking on the top.



### Writing space

Writing space is available on the  
surface of tube (opposite side from  
the scale side).



## Nuclease-free certificate

This mark shows RNase/DNase/Human-DNA free.  
Products with this mark are manufactured in  
the clean room under our high quality control,  
and inspected to meet our strict quality standards.  
RNase/DNase-free certificates can be issued  
for each lot upon your request.



Hyper Microtube

# Microtube High-Seal

**1.5mL**  
Flat Bottom

Pursuing a higher level of sealability.



**Writing space**

Flat cap allows marking on the top.



**Flat bottom**

Real scale



38.5 mm



Material: Polypropylene  
Centrifugal force:  
20,000 xG (water 1.0 mL / 15 minutes)  
With scale (200 / 1,000 µL)  
Flat top (with marking space)  
RNase/DNase/Human-DNA free

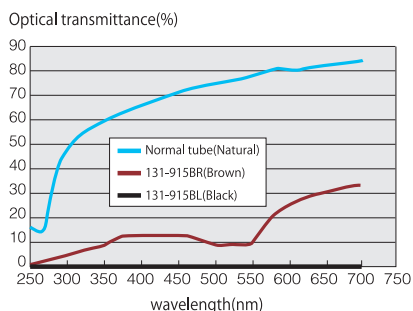
Cat. No.	Item	Unit	Case
131-815C	1.5 mL, Microtube, High-Seal, Flat Bottom, Slight-Stiff-Touch Cap, Natural	1000 tubes / bag	10 bags
131-815CS-N	1.5 mL, Microtube, High-Seal, Flat Bottom, Slight-Stiff-Touch Cap, Natural <b>Sterilized</b>	500 tubes (10 tubes×50 bags)	5 units
131-8155C	1.5 mL, Microtube, High-Seal, Flat Bottom, Soft-Touch Cap, Natural	1000 tubes / bag	10 bags
131-8155CS-N	1.5 mL, Microtube, High-Seal, Flat Bottom, Soft-Touch Cap, Natural <b>Sterilized</b>	500 tubes (10 tubes×50 bags)	5 units

Microtubes

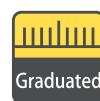
**1.5mL**  
Flat Bottom

## 1.5 mL Black & Brown for Shading

- Ultraviolet rays are not passed, suitable for light-sensitive sample.
- Convenient for experiment and preservation of the sample.
- Completely opaque black and translucent brown are available.



Material: Polypropylene  
Centrifugal force:  
20,000 xG (water 1.0 mL / 15 minutes)  
With scale (200 / 1,000 µL)  
Flat top (with marking space)  
RNase/DNase/Human-DNA free



Real scale

38.5 mm

Cat. No.	Item	Unit	Case
131-915BL	1.5 mL, Microtube, Flat Bottom, Slight-Stiff-Touch Cap, Black for Shading	1000 tubes / bag	10 bags
131-915BR	1.5 mL, Microtube, Flat Bottom, Slight-Stiff-Touch Cap, Brown for Shading	1000 tubes / bag	10 bags

**0.6mL**  
Round Bottom

## Round Bottom Standard Microtube



Scale



Writing Space

Material: Polypropylene  
 Centrifugal force:  
 19,000 xG (water 0.5 mL / 15 minutes)  
 With scale(100 / 200 / 300 / 400 / 500 / 600 µL)  
 Flat top (with marking space)  
 RNase/DNase/Human-DNA free

Marking space available opposite the scale.

Cat. No	Item	Unit	Case
130-806C	0.6 mL, Microtube, Round Bottom, Snap Cap, Natural	1000 tubes / bag	10 bags
130-806CS-N	0.6 mL, Microtube, Round Bottom, Snap Cap, Natural	<b>Sterilized</b> 500 tubes (10 tubes x 50 bags)	—

**5.0mL**  
Round Bottom

## Round Bottom "Mega" Tube



Scale



Writing Space

Marking space available opposite the scale.



Material: Polypropylene  
 Centrifugal force:  
 20,000 xG (water 4.0 mL / 15 minutes)  
 With scale(1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 3.5 / 4.0 / 4.5 / 5.0 mL)  
 Flat top (with marking space)  
 RNase/DNase/Human-DNA free



56.0 mm

Cat. No	Item	Unit	Case
233-150C	5.0 mL, Megatube, Round Bottom, Slight-Stiff-Touch Cap, Natural	250 tubes / bag	10 bags

**Sterilized**



The above sterilized products are packaged in sets of 10 each with the caps opened.



Microtubes

# PROKEEP Protein Low Binding Tube



**PROKEEP is a high quality tube developed for the use of protein or peptide analysis (SDS-PAGE, HPLC, MS) as it mitigates the risk of the sample loss during experiment and preservation, and improves the signals detection.**

**Our special blending plastic materials avoid problem caused by elution from the tube**

PROKEEP tubes reduce protein binding as a result of using our special blending of raw materials with low protein/peptide absorption and our technique of high precision finishing on the mold (no surface treatment on PROKEEP). With PROKEEP, elution from the tube can be avoided and better experiment result on MALDI MS analysis and Protein Chip analysis can be anticipated (See below).

Protein Low Binding Tube "PROKEEP"

## PROKEEP's Protein Low Binding performance

Loss of protein and peptide when using plastic containers is caused by the following two factors.

**a. Solution remained in the container after pipetting or centrifuge.**

**b. Adsorption of protein and peptide to the plastic containers.**

PROKEEP has been developed by approaching both of two factors.

Watson's PROKEEP containers are incomparable in terms of achieving a low residue signal.

PROKEEP's residue signal is approximately 1 / 20 million, which is 1 / 850 residue amount of other conventional hydrophilic products in the following factor (1).

No occurrence of peptide signal loss during 2 weeks-storage in the following factor (2).

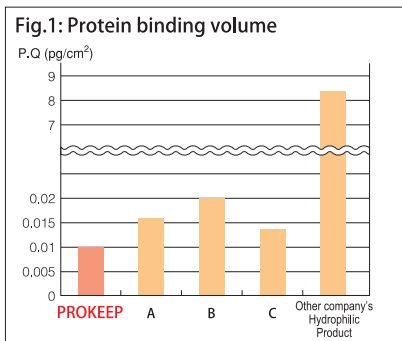
### (1) Residue Protein Amount: Fig 1

**Test Method:**

FITC-BSA solution (1 µg/mL) was put in a microtube and left for 1 hour at room temperature. The fluorescence of the surface of the tube was measured and digitized after removal of the solution, and then the residual protein mass was analyzed. This method evaluates the residual amount of protein on the surface of the tube.

**Results:**

The residue amount on PROKEEP low protein binding tube is extremely low, which is 1 / 20million of the protein added. Tubes with hydrophilic surface treatment exhibited higher residue amount due to characteristic of the treatment.(Fig.1)



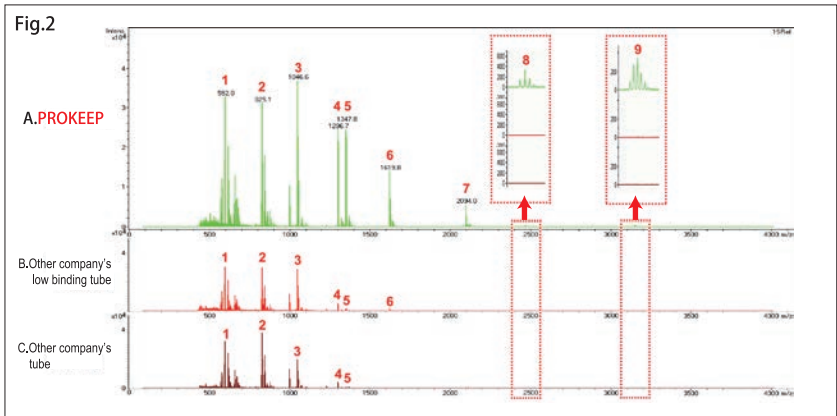
### (2) Adsorption of protein and peptide to the tube: Fig 2

**Test Method:**

A solution (0.1%TFA, 10 µL) equivalent to 500 fmol/µL peptide mix contained in Bruker Daltonics's Peptide calibration standard (#206195) was put in a tube and kept at 4°C for 2 weeks. Then, the peptide in the tube was collected and analyzed by mass spectrometer (Bruker Daltonics's Ultraflex tof/ tof).

**Results:**

In the case of PROKEEP's low protein binding tube, all the peaks were detected after the 2 weeks. Conventional tube's showed a part of the peaks were undetectable and peptide loss by adsorption was observed (Fig 2B).



### (3) Crystallization on MALDI Target Plate

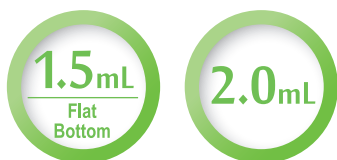
Fig.3



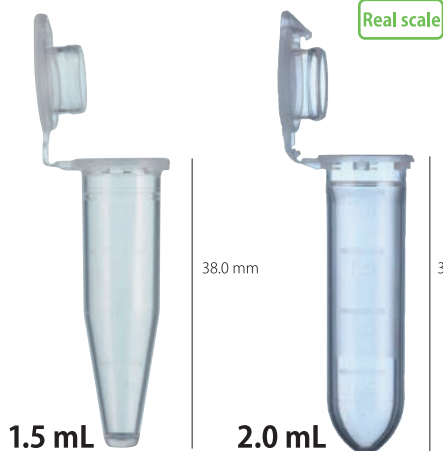
PROKEEP      Other company's hydrophilic treated tube      Other company's low binding tube

**Test Method:**

In the crystallization process on a target plate, which is the indispensable process of MALDI type mass spectrometer analysis, a sample collected from another company's hydrophilic treated tube exhibited a disturbance in crystallization and it was difficult to conduct an accurate measurement, and elution of resin content was suspected(Fig. 3). PROKEEP's low protein binding tube showed equivalent performance to the tube recommended by Bruker Daltonics.

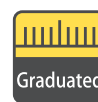


## Protein Low Binding Tube "PROKEEP"



Real scale

Material: Polypropylene  
 Centrifugal force:  
 [1.5 mL] 20,000 xG (water 1.0 mL / 15 minutes)  
 [2.0 mL] 7,000 xG (water 1.5 mL / 15 minutes)  
 RNase/DNase/Human-DNA free



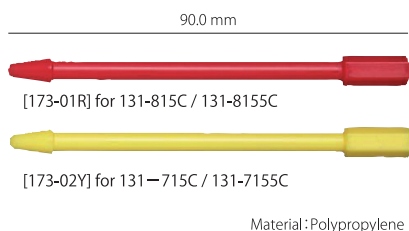
Cat. No.	Item	Unit	Case
PK-15C-500N	PROKEEP protein low binding tube 1.5 mL, Flat Bottom, Natural, Bulk pack	500 tubes / bag	20 bags
PK-20C-500	PROKEEP protein low binding tube 2.0 mL, Round Bottom, Natural, Bulk pack	500 tubes / bag	20 bags



"PROKEEP" / Homogenizer Pestles / Cap Lock

### Homogenizer Pestles

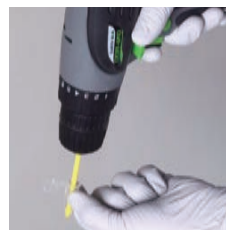
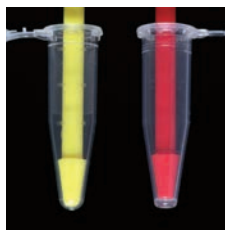
## Special pestle for Watson brand microtubes



[173-01R] for 131-815C / 131-8155C

[173-02Y] for 131-715C / 131-7155C

Material: Polypropylene



Pestles can be attached to bit-type screw drivers commercially available.



Cat. No.	Item	Unit	Case
173-01R	Pestles for Flat Bottom Microtube (131-815C / 8155C), Red	10 pieces	100 bags
173-02Y	Pestles for Round Bottom Microtube (131-715C / 7155C), Yellow	10 pieces	100 bags

### Cap Lock

## Designed to fit Watson brand microtubes



Material: Elastomer



Squeeze the knob of CAP LOCK to open



Pinch the closed lid of the tube with CAP LOCK



Then, CAP LOCK fits perfectly



The knob of CAP LOCK is useful when picking up from thermostat bath



Cat. No.	Item	Unit	Case
174-17Y	Cap Lock for 1.5 / 2.0 mL Microtube, Yellow	100 pieces	30 bags

**Centrifuge Tubes**

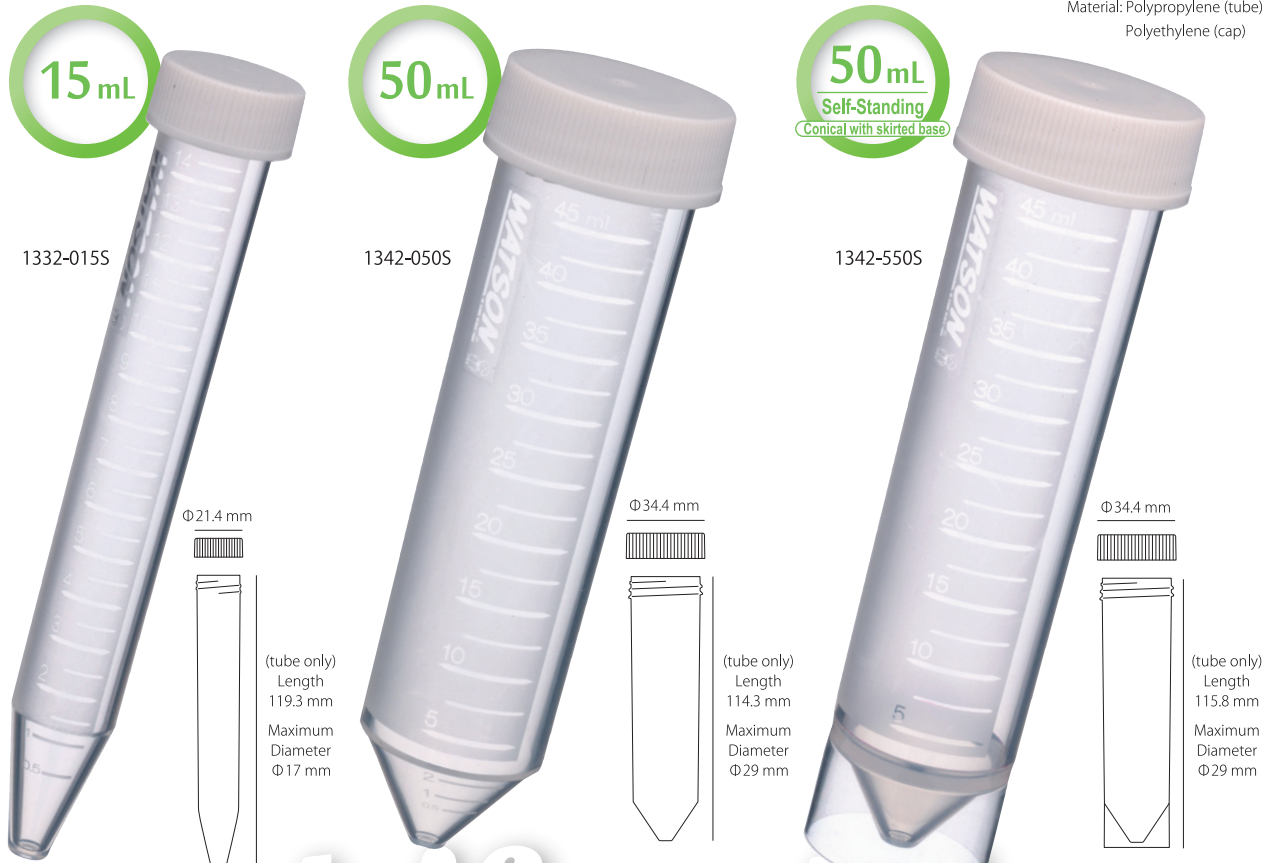
Sealing point, Half plug seal, Triple thread screw  
**The high airtightness is achieved through these three specific innovations**

\*See the next page for details

Real scale



Material: Polypropylene (tube)  
 Polyethylene (cap)



**centrifuge tube**



**RNase / DNase / Human-DNA free**

Products with this mark are manufactured in the clean room under our high quality control, and inspected to meet our strict quality standards.  
 RNase/ DNase-free certificates can be issued for each lot upon your request.



**Pyrogen test**

Results : Endotoxin level less than 0.05 EU/mL  
 \* according to Internal test

**Centrifugal force**

Tested with conical centrifuge tubes, 15 mL and 50 mL.

15 mL centrifuge tube : 18,000×G (14,100 RPM)  
 50 mL centrifuge tube : 18,000×G (14,100 RPM)  
 [ Test condition ]  
 Centrifuge : TOMY MX-30S  
 Temp. : 20°C  
 Distilled Water : 12 mL for 15 mL CF tube  
 40 mL for 50 mL CF tube  
 Rotor : AR-510-04  
 Centrifugation : 5 minutes



Cat. No.	Item	Unit
1332-0155	15 mL, Centrifuge Tube, Conical Bottom, White Cap <b>Sterilized</b>	480 pieces (48 pieces×10 bags)
1342-050S	50 mL, Centrifuge Tube, Conical Bottom, White Cap <b>Sterilized</b>	480 pieces (24 pieces×20 bags)
1342-550S	50 mL, Centrifuge Tube, Self-standing, White Cap <b>Sterilized</b>	480 pieces (24 pieces×20 bags)

Centrifuge Tubes

**High airtightness**

**Sealing point**

The proper cap torque-position is informed by the click, when one of the 3 protrusions inside the lid fits into the groove on the tube.



① The protrusions on the cap indicate you the best sealing position when it fits on the groove.



② The left picture shows too much screwing when the protrusions go over the groove.



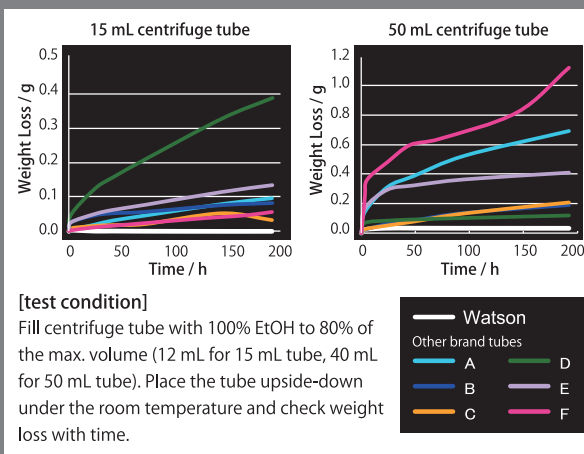
③ The left picture shows possible loosening the cap and sample leakage when the protrusions come before the groove.

**Half plug seal**

Bigger sealing area performs higher airtightness.

**Triple thread screw**

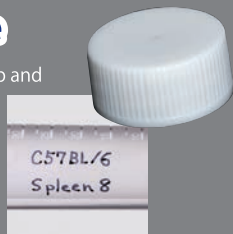
Triple thread screw enables easy open/close with less rotation. It also prevents screwing a cap diagonally.



**Convenient functions**

**Wide writing space**

It has wide writing space on a cap and the frosted area on the body.



**High precision-scale till the cone top**

Graduation is molded so that it does not fade away. Scale is made till 0.5 mL line at the cone.



**Centrifuge Tube Floating Rack "Jellyfish"**



Material: Polypropylene

- Dedicated rack for four 15 mL / 50 mL centrifuge tubes.
- The rack can be used as a floater by changing the direction of the tray.



**Dual-use**

■ As a rack



■ As a floater



Cat. No.	Item	Unit
1541-809	Centrifuge Tube Floater Rack "Jellyfish"	1 piece



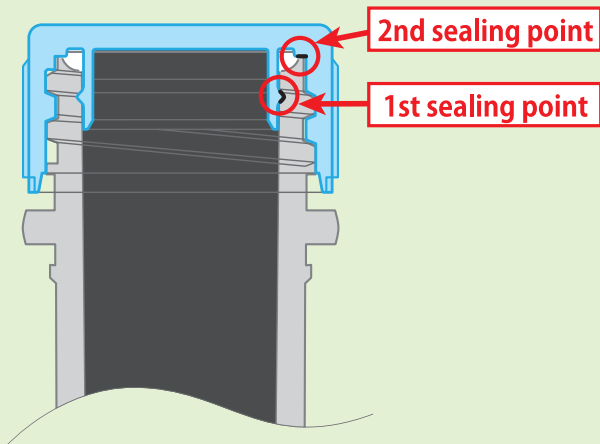
Centrifuge Tubes / Centrifuge Tube Floating Rack



*O-ring less Screwcap Tubes*

**Double-sealed design, Leak-less even without O-ring**

**Two sealing points provide high airtightness**



1st sealing point where the protruding part is located inside of the cap makes the clearance between the cap and the body seal. By fully tightening the cap, 2nd sealing point makes both upper and main body seal completely seal, resulting in preventing test sample leakage and evaporation.

about 180°

2nd sealing point

1st sealing point

The part where the protrusion of the cap matches the tube body by tightening is "1st sealing point". Tightening 1st sealing point is essential.

Extra tightening up to about 180° where 2nd sealing point is located is capable of high sealing performance.

1st sealing point

Tighten up to "2nd sealing point"

The bottom portion of thread on the tube body appear.

**O-ring less Screwcap Tube is NOT autoclavable.**

If autoclave process needed, please apply "Screwcap Tubes" with O-ring on pages 50 and 51.

O-ring less Screwcap Tubes



**Durable for centrifugal force 20,000 xG\***

Our originally designed tube proves resistance against a centrifugal force as high as 20,000 x G (water, 15 min, adapter used).  
\*0.5mL Tube : 17,000 x G



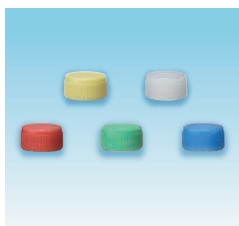
**User-friendly and small group packaging**

A small sterilized package consists of 20 pcs of screw tubes with its caps sealed completely. More hygienic performance is available.



**Convenient for positioning the tube when centrifugation**

A marker (notch), which is convenient for positioning the tube during centrifugation and other purposes, is provided on the flange of the tube.



**Polyethylene Cap**

The lineup of user-selectable 5 colors is capable of classification.  
\* Not Autoclavable

**Precautions: Handling Screwcap Tubes under the Liquid Nitrogen**

1. In terms of safety, store the screwcap tubes in the vapor phase.
2. To avoid any risks such as the tube rupture and the sample spatter, do NOT handle the screwcap tube under the liquid phase.
3. Fill up the test sample into the body of the screwcap tube up to the degree of 90% of the maximum content.
4. Wear a face shield, protective clothes, and gloves when handling liquid nitrogen for defrosting.



Material: Polypropylene (tube)  
Polyethylene (cap)  
Centrifugal force: 17,000 x G  
(water 0.5 mL / 15 minutes)  
Flat top (with marking space)



Cat. No.	Item	Cap color	Unit	Case
1394-050-SS-C	0.5 mL, O-ring less Screwcap Tube, Self-standing	clear	500 tubes	—
1394-050-SS-B	0.5 mL, O-ring less Screwcap Tube, Self-standing	blue	500 tubes	—
1394-050-SS-G	0.5 mL, O-ring less Screwcap Tube, Self-standing	green	500 tubes	—
1394-050-SS-R	0.5 mL, O-ring less Screwcap Tube, Self-standing	red	500 tubes	—
1394-050-SS-Y	0.5 mL, O-ring less Screwcap Tube, Self-standing	yellow	500 tubes	—
1394-050-SS-CS	0.5 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> clear	500 tubes (20 tubes x 25 bags)	10 units
1394-050-SS-BS	0.5 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> blue	500 tubes (20 tubes x 25 bags)	10 units
1394-050-SS-GS	0.5 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> green	500 tubes (20 tubes x 25 bags)	10 units
1394-050-SS-RS	0.5 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> red	500 tubes (20 tubes x 25 bags)	10 units
1394-050-SS-YS	0.5 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> yellow	500 tubes (20 tubes x 25 bags)	10 units
1394-050-SS-LP-C	0.5 mL, O-ring less Screwcap Tube attached Loop Cap, Self-standing	clear	500 tubes	—
1394-050-SS-LP-CS	0.5 mL, O-ring less Screwcap Tube attached Loop Cap, Self-standing	<b>Sterilized</b> clear	500 tubes (20 tubes x 25 bags)	10 units



Material: Polypropylene (tube)  
Polyethylene (cap)  
Centrifugal force: 20,000 x G  
(water 1.0 mL / 15 minutes)  
Flat top (with marking space)



Cat. No.	Item	Cap color	Unit	Case
1394-150-C	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	clear	500 tubes	—
1394-150-B	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	blue	500 tubes	—
1394-150-G	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	green	500 tubes	—
1394-150-R	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	red	500 tubes	—
1394-150-Y	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	yellow	500 tubes	—
1394-150-CS	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	<b>Sterilized</b> clear	500 tubes (20 tubes x 25 bags)	10 units
1394-150-BS	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	<b>Sterilized</b> blue	500 tubes (20 tubes x 25 bags)	10 units
1394-150-GS	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	<b>Sterilized</b> green	500 tubes (20 tubes x 25 bags)	10 units
1394-150-RS	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	<b>Sterilized</b> red	500 tubes (20 tubes x 25 bags)	10 units
1394-150-YS	1.5 mL, O-ring less Screwcap Tube, Conical Bottom	<b>Sterilized</b> yellow	500 tubes (20 tubes x 25 bags)	10 units
1394-150-LP-C	1.5 mL, O-ring less Screwcap Tube attached Loop Cap, Conical Bottom	clear	500 tubes	—
1394-150-LP-CS	1.5 mL, O-ring less Screwcap Tube attached Loop Cap, Conical Bottom	<b>Sterilized</b> clear	500 tubes (20 tubes x 25 bags)	10 units



O-ring less Screwcap Tubes



Material: Polypropylene (tube)  
Polyethylene (cap)  
Centrifugal force: 20,000 x G  
(water 1.0 mL / 15 minutes)  
Flat top (with marking space)

Real scale



Cat. No.	Item	Cap color	Unit	Case
1394-150-SS-C	1.5 mL, O-ring less Screwcap Tube, Self-standing	clear	500 tubes	—
1394-150-SS-B	1.5 mL, O-ring less Screwcap Tube, Self-standing	blue	500 tubes	—
1394-150-SS-G	1.5 mL, O-ring less Screwcap Tube, Self-standing	green	500 tubes	—
1394-150-SS-R	1.5 mL, O-ring less Screwcap Tube, Self-standing	red	500 tubes	—
1394-150-SS-Y	1.5 mL, O-ring less Screwcap Tube, Self-standing	yellow	500 tubes	—
1394-150-SS-CS	1.5 mL, O-ring less Screwcap Tube, Self-standing	Sterilized clear	500 tubes (20 tubes x 25 bags)	10 units
1394-150-SS-BS	1.5 mL, O-ring less Screwcap Tube, Self-standing	Sterilized blue	500 tubes (20 tubes x 25 bags)	10 units
1394-150-SS-GS	1.5 mL, O-ring less Screwcap Tube, Self-standing	Sterilized green	500 tubes (20 tubes x 25 bags)	10 units
1394-150-SS-RS	1.5 mL, O-ring less Screwcap Tube, Self-standing	Sterilized red	500 tubes (20 tubes x 25 bags)	10 units
1394-150-SS-YS	1.5 mL, O-ring less Screwcap Tube, Self-standing	Sterilized yellow	500 tubes (20 tubes x 25 bags)	10 units
1394-150-SS-LP-C	1.5 mL, O-ring less Screwcap Tube attached Loop Cap, Self-standing	clear	500 tubes	—
1394-150-SS-LP-CS	1.5 mL, O-ring less Screwcap Tube attached Loop Cap, Self-standing	Sterilized clear	500 tubes (20 tubes x 25 bags)	10 units



Material: Polypropylene (tube)  
Polyethylene (cap)  
Centrifugal force: 20,000 x G  
(water 1.5 mL / 15 minutes)  
Flat top (with marking space)

Real scale



Cat. No.	Item	Cap color	Unit	Case
1394-200-C	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	clear	500 tubes	—
1394-200-B	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	blue	500 tubes	—
1394-200-G	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	green	500 tubes	—
1394-200-R	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	red	500 tubes	—
1394-200-Y	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	yellow	500 tubes	—
1394-200-CS	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	Sterilized clear	500 tubes (20 tubes x 25 bags)	10 units
1394-200-BS	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	Sterilized blue	500 tubes (20 tubes x 25 bags)	10 units
1394-200-GS	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	Sterilized green	500 tubes (20 tubes x 25 bags)	10 units
1394-200-RS	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	Sterilized red	500 tubes (20 tubes x 25 bags)	10 units
1394-200-YS	2.0 mL, O-ring less Screwcap Tube, Conical Bottom	Sterilized yellow	500 tubes (20 tubes x 25 bags)	10 units
1394-200-LP-C	2.0 mL, O-ring less Screwcap Tube attached Loop Cap, Conical Bottom	clear	500 tubes	—
1394-200-LP-CS	2.0 mL, O-ring less Screwcap Tube attached Loop Cap, Conical Bottom	Sterilized clear	500 tubes (20 tubes x 25 bags)	10 units



Material: Polypropylene (tube)  
Polyethylene (cap)  
Centrifugal force: 20,000 x G  
(water 1.5 mL / 15 minutes)  
Flat top (with marking space)



Real scale

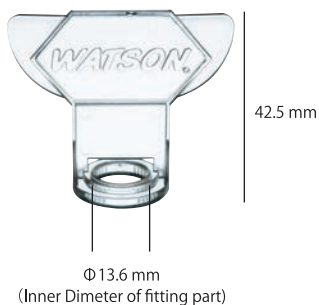


Cat. No.	Item	Cap color	Unit	Case
1394-200-SS-C	2.0 mL, O-ring less Screwcap Tube, Self-standing	clear	500 tubes	—
1394-200-SS-B	2.0 mL, O-ring less Screwcap Tube, Self-standing	blue	500 tubes	—
1394-200-SS-G	2.0 mL, O-ring less Screwcap Tube, Self-standing	green	500 tubes	—
1394-200-SS-R	2.0 mL, O-ring less Screwcap Tube, Self-standing	red	500 tubes	—
1394-200-SS-Y	2.0 mL, O-ring less Screwcap Tube, Self-standing	yellow	500 tubes	—
1394-200-SS-CS	2.0 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> clear	500 tubes (20 tubes x 25 bags)	10 units
1394-200-SS-BS	2.0 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> blue	500 tubes (20 tubes x 25 bags)	10 units
1394-200-SS-GS	2.0 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> green	500 tubes (20 tubes x 25 bags)	10 units
1394-200-SS-RS	2.0 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> red	500 tubes (20 tubes x 25 bags)	10 units
1394-200-SS-YS	2.0 mL, O-ring less Screwcap Tube, Self-standing	<b>Sterilized</b> yellow	500 tubes (20 tubes x 25 bags)	10 units
1394-200-SS-LP-C	2.0 mL, O-ring less Screwcap Tube attached Loop Cap, Self-standing	clear	500 tubes	—
1394-200-SS-LP-CS	2.0 mL, O-ring less Screwcap Tube attached Loop Cap, Self-standing	<b>Sterilized</b> clear	500 tubes (20 tubes x 25 bags)	10 units



O-ring less Screwcap Tubes / Screwcap Opener

### Screwcap Opener



Easy to open the cap without direct touch by hand.

Material: Polycarbonate  
**AC** Autoclavable  
\*: see below

Cat. No.	Item	Unit
175-15C	Screwcap Opener, Natural	1 piece

Note:(\*)Repeated autoclaving may cause rack damaged.

### Screwcap Tubes

#### Durable for centrifugal force 20,000 xG\*



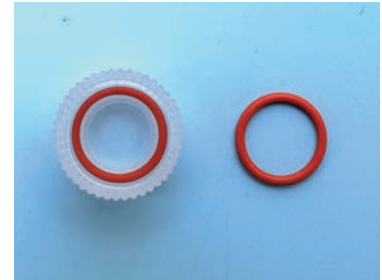
Our originally designed tube proves resistance against a centrifugal force as high as 20,000 x G (water, 15 min, adapter used).  
\* 0.5mL Tube : 17,000 x G

#### Convenient for positioning the tube when centrifugation



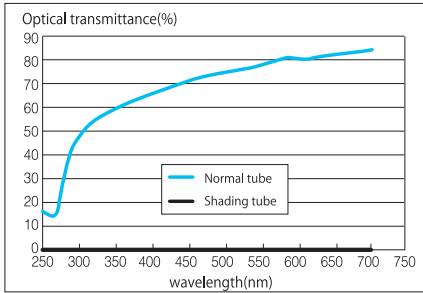
A marker (notch), which is convenient for positioning the tube during centrifugation and other purposes, is provided on the flange of the tube.

#### Resistant to the pressure and freeze



O- ring made of silicone rubber is resistant to the pressure and is suitable for storage in liquid nitrogen (vapor phase) or the deep freezer.

#### Shading screwcap tube



This light-shielding screwcap tube is capable of thoroughly shielding light of short to long wavelengths and is best suited for use in experiments on sensitive samples, such as bilirubin, as well as their storage.

#### Precautions: Handling Screwcap Tubes under the Liquid Nitrogen

1. In terms of safety, store the screw cap tubes in the vapor phase.
2. To avoid any risks such as the tube rupture and the sample spatter, do NOT handle the screwcap tube under the liquid phase.
3. Fill up the test sample into the body of the screwcap tube up to the degree of 90% of the maximum content.
4. Wear a face shield, protective clothes, and gloves when handling liquid nitrogen for defrosting.

Screwcap Tubes



Material: Polypropylene (tube, cap)  
Silicone Rubber (O-ring: Please loosen the cap and autoclave)  
Centrifugal force: 17,000 x G (water 0.5 mL / 15 minutes)  
Flat top (with marking space)

Real scale



Cat. No.	Item	Unit	Case
139-105-111C	0.5 mL, Screwcap Tube, Self-standing, Natural (tube only)	500 tubes	10 bags
139-105-111BL	0.5 mL, Screwcap Tube for Shading, Self-standing, Black (tube only)	500 tubes	10 bags
1392-050-SS-LP-C	0.5 mL, Screwcap Tube attached Loop Cap, Self-standing, Natural	500 tubes	10 bags



Material: Polypropylene (tube, cap)  
Silicone Rubber (O-ring: Please loosen the cap and autoclave)  
Centrifugal force: 20,000 x G (water 1.0 mL / 15 minutes)  
Flat top (with marking space)

Real scale



Cat. No.	Item	Unit	Case
139-115-112C	1.5 mL, Screwcap Tube, Conical Bottom, Natural (tube only)	500 tubes	10 bags
139-115-112BL	1.5 mL, Screwcap Tube for Shading, Conical Bottom, Black (tube only)	500 tubes	10 bags
1392-150-LP-C	1.5 mL, Screwcap Tube attached Loop Cap, Conical Bottom, Natural	500 tubes	10 bags





Material: Polypropylene (tube, cap)  
Silicone Rubber (O-ring: Please loosen the cap and autoclave)  
Centrifugal force: 20,000 x G (water 1.0 mL / 15 minutes)  
Flat top (with marking space)



Cat. No.	Item	Unit	Case
139-115-111C	1.5 mL, Screwcap Tube, Self-standing, Natural (tube only)	500 tubes	10 bags
139-115-111BL	1.5 mL, Screwcap Tube for Shading, Self-standing, Black (tube only)	500 tubes	10 bags
1392-150-SS-LP-C	1.5 mL, Screwcap Tube attached Loop Cap, Self-standing, Natural	500 tubes	10 bags



Material: Polypropylene (tube, cap)  
Silicone Rubber (O-ring: Please loosen the cap and autoclave)  
Centrifugal force: 20,000 x G (water 1.5 mL / 15 minutes)  
Flat top (with marking space)



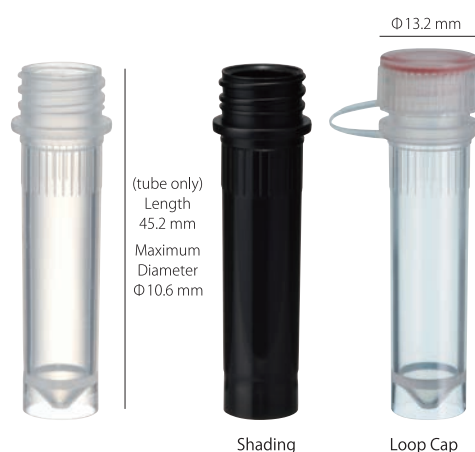
Cat. No.	Item	Unit	Case
139-120-112C	2.0 mL, Screwcap Tube, Conical Bottom, Natural (tube only)	500 tubes	10 bags
139-120-112BL	2.0 mL, Screwcap Tube for Shading, Conical Bottom, Black (tube only)	500 tubes	10 bags
1392-200-LP-C	2.0 mL, Screwcap Tube attached Loop Cap, Conical Bottom, Natural	500 tubes	10 bags



Material: Polypropylene (tube, cap)  
Silicone Rubber (O-ring: Please loosen the cap and autoclave)  
Centrifugal force: 20,000 x G (water 1.5 mL / 15 minutes)  
Flat top (with marking space)



Cat. No.	Item	Unit	Case
139-120-111C	2.0 mL, Screwcap Tube, Self-standing, Natural (tube only)	500 tubes	10 bags
139-120-111BL	2.0 mL, Screwcap Tube for Shading, Self-standing, Black (tube only)	500 tubes	10 bags
1392-200-SS-LP-C	2.0 mL, Screwcap Tube attached Loop Cap, Self-standing, Natural	500 tubes	10 bags



## Screwcaps



### 6 Colors

Material: Polypropylene (cap) Silicone Rubber (O-ring)



Cat. No.	Item	Unit	Case
139-201C	Screwcap with O-ring, Natural	500 pieces	20 bags
139-201B	Screwcap with O-ring, Blue	500 pieces	20 bags
139-201G	Screwcap with O-ring, Green	500 pieces	20 bags
139-201R	Screwcap with O-ring, Red	500 pieces	20 bags
139-201Y	Screwcap with O-ring, Yellow	500 pieces	20 bags
139-201BL	Screwcap with O-ring, Black	500 pieces	20 bags

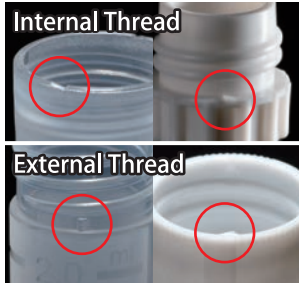


Screwcap Tubes / Caps

**Cryotubes**

**Vial for cryopreservation in the vapor phase of liquid nitrogen**

**Cap lock mechanism**



Tube has small protrusion on both of body and cap. As a result, this tube has high sealing effect and it's possible to prevent sample leakage.

**Can fill liquid sample to the maximum capacity**



The scale is marked on the body. It's possible to fill liquid maximum capacity.

**Characteristic Bottom shape**



Idle rotation is prevented by characteristic bottom shape when using this.

**Flat Cap**



Writing space is available on the cap surface.

**Cryotubes with Internal Thread Screwcaps**



Real scale



(tube only)  
Length 28.5 mm  
Maximum Diameter  $\Phi$ 12.4 mm



Real scale



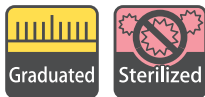
(tube only)  
Length 41.5 mm  
Maximum Diameter  $\Phi$ 12.5 mm



Able to store tube by using cane.

Material: Polypropylene (tube)  
Polyethylene (cap)

\*1 tube opener as tube accessories is attached per 500 tubes.



Cat. No.	Item	Unit	Case
1396-101S	1.0 mL Cryotubes with Internal Thread Screwcaps, Self-standing <b>Sterilized</b>	20 pieces / bag	25 bags
1396-201S	2.0 mL Cryotubes with Internal Thread Screwcaps, Self-standing <b>Sterilized</b>	20 pieces / bag	25 bags

**Cryotubes with External Thread Screwcaps**



Real scale



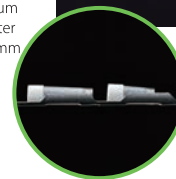
(tube only)  
Length 32.6 mm  
Maximum Diameter  $\Phi$ 12.5 mm



Real scale

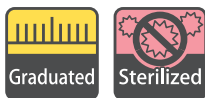


(tube only)  
Length 45.6 mm  
Maximum Diameter  $\Phi$ 12.5 mm



Able to store tube by using cane. But complete storing the tube is obstructed by cap. \*This is a general phenomenon.

Material: Polypropylene (tube)  
Polyethylene (cap)



Cat. No.	Item	Unit	Case
1396-100S	1.0 mL Cryotubes with External Thread Screwcaps, Self-standing <b>Sterilized</b>	20 pieces / bag	25 bags
1396-200S	2.0 mL Cryotubes with External Thread Screwcaps, Self-standing <b>Sterilized</b>	20 pieces / bag	25 bags



Cryotubes

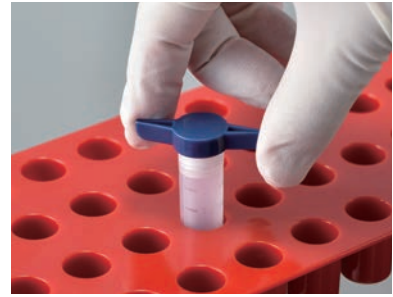
### Cryotube Cap Opener for Internal Thread

Internal Thread type is able to be closed tightly to have high sealing effect. However, there are cases that Internal Thread type close too tightly to open by hand.

At the time, Internal Thread type is able to be opened easily by using this opener.

Easy to open the cap without direct touch by hand.

*\*Only use for Cryotube with Internal Thread (1396-101S, 1396-201S).*



Real scale



(back side of cap)  
There are grooves that is able to grip the cap certainly.



Material: Polypropylene

Cat. No.	Item	Unit
175-20B	Cryotube Cap Opener for Cryotubes with Internal Thread	5 pieces / bag



Cryotube Cap Opener