

# Tubes

## Hyper Microtube 1.5mL / 2.0mL



131-715C  
 131-7155C  
 132-602C

Made from virgin polypropylene (autoclavable)  
**131-715C/7155C**  
 Centrifugal force: 20,000xG (water 1.0mL / 15minutes)  
 With scale (0.5/1.0/1.5mL)  
 Flat top (with marking space)  
 132-620C  
 Centrifugal force: 20,000xG (water 1.5mL / 15minutes)  
 With scale (0.5/1.0/1.5/2.0mL)  
 Flat top (with marking space)



### Locking mechanism

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

### Contamination Prevention

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

### Scale

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



### Friendly hinge for finger

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

### 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)

Cat. No.	Item	Color	Unit	Case
131-715C	1.5mL, Microtube with Locking-Cap, Round Bottom, Hard-Touch	Natural	1000tubes / bag	10bags
131-7155C	1.5mL, Microtube with Locking-Cap, Round Bottom, Soft-Touch	Natural	1000tubes / bag	10bags
132-620C	2.0mL, Microtube with Locking-Cap, Round Bottom, Slight-Stiff-Touch	Natural	1000tubes / bag	5bags

## 5.0mL Mega Tube Round-Bottom

Made from virgin polypropylene (autoclavable)  
 Centrifugal force: 20,000xG (water 4.0mL / 15minutes)  
 With scale (1.0/1.5/2.0/2.5/3.0/3.5/4.0/4.5/5.0mL)  
 Flat top (with marking space)



233-150C



Scale



Writing space



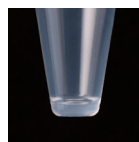
131-815C  
 131-8155C

## Microtube "High Seal" 1.5mL

Made from virgin polypropylene (autoclavable)  
 Centrifugal force: 20,000xG (water 1.0mL / 15minutes)  
 With scale (200/1,000µL)  
 Flat top (with marking space)



Writing space  
 Flat cap allows marking on the top.



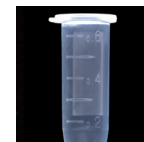
Flat bottom



130-806C

## Round Bottom 0.6mL

Made from virgin polypropylene (autoclavable)  
 Centrifugal force: 19,000xG (water 0.5mL / 15minutes)  
 With scale (100/200/300/400/500/600µL)  
 Flat top (with marking space)



Scale



Writing space  
 Marking space available opposite the scale.

Cat. No.	Item	Color	Unit	Case
233-150C	5.0mL, Megatube, Round Bottom, Slight-Stiff-Touch Cap	Natural	250tubes / bag	10bags
131-815C	1.5mL, Microtube, High-Seal, Flat Bottom, Slight-Stiff-Touch Cap	Natural	1000tubes / bag	10bags
131-8155C	1.5mL, Microtube, Flat Bottom, Soft-Touch Cap	Natural	1000tubes / bag	10bags
130-806C	0.6mL, Microtube, Round Bottom, Snap Cap	Natural	1000tubes / bag	10bags



### We issue nuclease-free certification.

Watson branded products with this mark are RNase/DNase/Human-DNA free. These products are manufactured in the clean room under our high quality control, and inspected according to our strict quality standard. RNase/DNase-free certificate will be issued for each lot with your request.

# 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).

## 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 1/20million, 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).

Made from virgin polypropylene (autoclavable)

PK-15C-500 Centrifugal force : 20,000xG (water 1.0mL / 15minutes)  
With scale (200 / 1000µL) Flat top (with marking space)

PK-20C-500 Centrifugal force : 7,000xG (water 1.5mL / 15minutes)  
With scale (0.5 / 1.0 / 1.5 / 2.0mL) Flat top (with marking space)

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

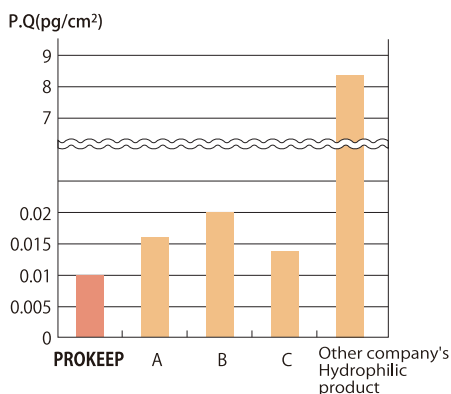
#### Test Method:

FITC-BSA solution (1µg/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.

#### Result:

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)

Fig. 1: Protein binding volume



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

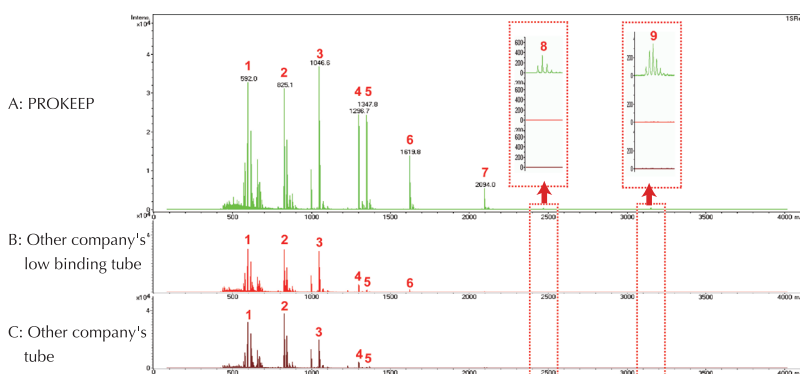
#### Test Method:

A solution (0.1%TFA, 10µL) equivalent to 500fmol/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).

#### Result:

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).

Fig.2



### (3) Crystallization on MALDI Target Plate

#### 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.

Fig.3



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

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

# Homogenizer Pestle

Special pestle for Watson brand micro-tubes  
Made of polypropylene, Autoclavable

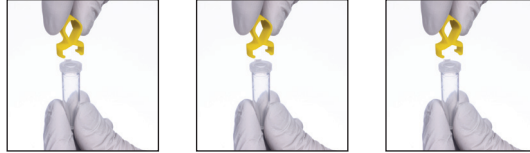


Pestles can be attached to bit-type screw drivers available in the market.

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

# Cap Lock

Designed to fit Watson brand microtubes  
Made of elastomer, Autoclavable



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	Color	Unit	Case
174-17Y	Cap Lock for 1.5/2.0mL Microtube	Yellow	100pcs. / bag	30bags

# Centrifuge Tube



## High airtightness

Half plug seal, sealing point, Triple thread screw.  
New centrifuge tube full of new ideas to achieve high airtightness.



### Sealing point

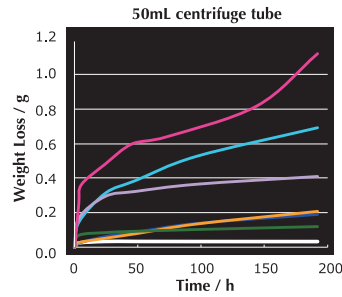
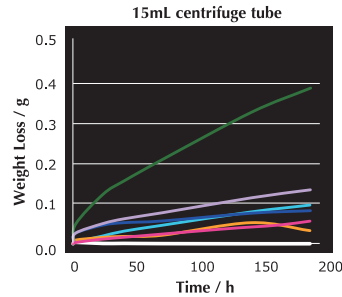
The proper cap torque-position is informed by the click, when one of the 3 protrusions inside the lid fits into the groove on the tube.



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

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

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.

## Centrifugal force

15mL centrifuge tube : 18,000×G (14,100RPM)  
50mL centrifuge tube : 18,000×G (14,100RPM)  
[Test condition]  
centrifuge : TOMY MX-305 Temp. : 20°C  
Distilled Water : 12mL for 15mL CF tube / 40mL for 50mL CF tube  
Rotor : AR-510-04 Centrifugation : 5minutes

Watson	Other brand tubes
—	[A] [B] [C] [D] [E] [F]

※[test condition]  
Fill centrifuge tube with 100% EtOH to 80% of the max. volume (12mL for 15mL tube, 40mL for 50mL tube).  
Place the tube upside-down under the room temperature and check weight loss with time.

## 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 0.5mL line at the cone.



## Pyrogen test

results : Endotoxin level less than 0.05EU/mL  
※according to Internal test

Cat. No.	Item	Color	Unit	Case
1332-015S	15mL centrifuge tube, Conical	sterilized	480 pieces (48 pieces x 10 bags)	
1342-050S	50mL centrifuge tube, Conical	sterilized	480 pieces (24 pieces x 20 bags)	
1342-550S	50mL Self-standing centrifuge tube	sterilized	480 pieces (24 pieces x 20 bags)	

# Screwcap Tubes



**0.5mL,  
Screwcap tube,  
Self-standing,  
Conical Bottom  
tube only**

Centrifugal force:  
17,000xG  
(water 0.5mL / 15minutes)  
Flat top (with marking space)




**1.5mL,  
Screwcap tube,  
Self-standing,  
Conical Bottom  
tube only**

Centrifugal force:  
20,000xG  
(water 1.0mL / 15minutes)  
Flat top (with marking space)




**1.5mL,  
Screwcap tube,  
Self-standing,  
Conical Bottom,  
tube only**

Centrifugal force:  
20,000xG  
(water 1.0mL / 15minutes)  
Flat top (with marking space)



**2.0mL,  
Screwcap tube,  
Self-standing,  
Conical Bottom,  
tube only**

Centrifugal force:  
20,000xG  
(water 1.5mL / 15minutes)  
Flat top (with marking space)



**2.0mL,  
Screwcap tube,  
Conical Bottom,  
tube only**

Centrifugal force:  
20,000xG  
(water 1.5mL / 15minutes)  
Flat top (with marking space)



**0.5mL,  
Screwcap tube for shading,  
Self-standing,  
Conical Bottom,  
tube only**

Centrifugal force:  
17,000xG  
(water 0.5mL / 15minutes)  
Flat top (with marking space)



**1.5mL,  
Screwcap tube for shading,  
Self-standing,  
Conical Bottom,  
tube only**

Centrifugal force:  
20,000xG  
(water 1.0mL / 15minutes)  
Flat top (with marking space)



**1.5mL,  
Screwcap tube for shading,  
Conical Bottom,  
tube only**

Centrifugal force:  
20,000xG  
(water 1.0mL / 15minutes)  
Flat top (with marking space)



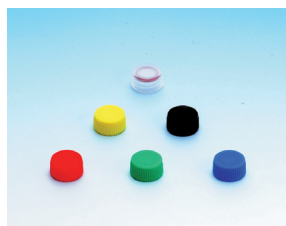
**2.0mL,  
Screwcap tube for shading,  
Self-standing,  
Conical Bottom,  
tube only**

Centrifugal force:  
20,000xG  
(water 1.5mL / 15minutes)  
Flat top (with marking space)



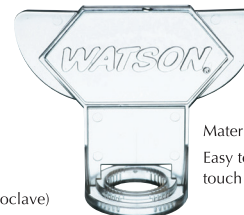
**2.0mL,  
Screwcap tube for shading,  
Conical Bottom,  
tube only**

Centrifugal force:  
20,000xG  
(water 1.5mL / 15minutes)  
Flat top (with marking space)



**Screwcap with O-ring,  
Clear  
Yellow  
Black  
Red  
Green  
Blue**

O-ring = silicone rubber  
(Please loosen the cap and autoclave)



**Screwcap Opener**

Material: Polycarbonate (autoclavable)  
Easy to open the cap without direct touch by hand.

Cat. No.	Item	Color	Unit	Case
139-105-111C	0.5mL, Screwcap tube, Self-standing, Conical Bottom, tube only	Natural	500tubes / bag	10bags
139-115-111C	1.5mL, Screwcap tube, Self-standing, Conical Bottom, tube only	Natural	500tubes / bag	10bags
139-115-112C	1.5mL, Screwcap tube, Conical Bottom, tube only	Natural	500tubes / bag	10bags
139-120-111C	2.0mL, Screwcap tube, Self-standing, Conical Bottom, tube only	Natural	500tubes / bag	10bags
139-120-112C	2.0mL, Screwcap tube, Conical Bottom, tube only	Natural	500tubes / bag	10bags
139-105-111BL	0.5mL, Screwcap tube for shading, Self-standing, Conical Bottom, tube only	Black	500tubes / bag	10bags
139-115-111BL	1.5mL, Screwcap tube for shading, Self-standing, Conical Bottom, tube only	Black	500tubes / bag	10bags
139-115-112BL	1.5mL, Screwcap tube for shading, Conical Bottom, tube only	Black	500tubes / bag	10bags
139-120-111BL	2.0mL, Screwcap tube for shading, Self-standing, Conical Bottom, tube only	Black	500tubes / bag	10bags
139-120-112BL	2.0mL, Screwcap tube for shading, Conical Bottom, tube only	Black	500tubes / bag	10bags
139-201C	Screwcap with O-ring, Clear	Natural	500caps / bag	20bags
139-201B	Screwcap with O-ring, Blue	Blue	500caps / bag	20bags
139-201G	Screwcap with O-ring, Green	Green	500tubes / bag	20bags
139-201R	Screwcap with O-ring, Red	Red	500tubes / bag	20bags
139-201Y	Screwcap with O-ring, Yellow	Yellow	500tubes / bag	20bags
139-201BL	Screwcap with O-ring, Black	Black	500tubes / bag	20bags
175-15C	Screwcap Opener	Natural	1piece	-

Something Different.  
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