Biosigma
A DOMINIQUE DUTSCHER COMPANY

CLEARLine®
"Be cool, be safe, be CLEARLine"

CRYOGENLine®
Made in Italy

CryoGen® Tubes 1D External cap

Sterile, DNase, RNase, Human DNA, ATP, Pyrogen free

1,2 ml | 2 ml | 2 ml | 3 ml | 4 ml | 5 ml

CryoGen Tubes 2D External cap

Sterile, DNase, RNase, Human DNA, ATP, Pyrogen free

2 ml | 5 ml

CryoGen Tubes 2D Internal cap

Sterile, DNase, RNase, Human DNA, ATP, Pyrogen free

2 ml | 5 ml

CryoGen® Tubes 1D Internal cap

Sterile, DNase, RNase, Human DNA, ATP, Pyrogen free

1,2 ml | 2 ml | 2 ml | 4 ml | 4 ml | 5 ml | 5 ml

Vial Picker

Writing Cap Disks

Medical Grade Raw Materials

The quality of substances for pharmaceutical/medical, as a guarantee for their safe use and effectiveness must be evaluated according to standards, or specifics, continuously updated against the scientific-technological progress, any emerging problems and regulatory development. This implies a constant and dynamic review of the Texts that make up these rules and their subsequent publication in the "reference pharmacopoeia".

TUBE : POLYPROPYLENE

BI-INJECTED CAP : POLYETHYLENE +THERMOPLASTIC VULCANIZATE

STATEMENT ON COMPLIANCE TO REGULATIONS ON MEDICAL USE

The raw materials used to manufacture Biosigma's Cryogen Tubes fulfill the requirements on materials used for articles or components of articles intended for medical use as described in:

Council of Europe: European Pharmacopoeia, 7th edition (2011), and supplement 7.5 (07/2012)
Monograph 3.2.2. Plastic containers and closures for pharmaceutical use

USA:The product has passed the United States Pharmacopeia testing including Class VI tests and has been assigned a FDA Drug Master File.

Additional information: Material has successfully passed the biological tests according to ISO 10993 -
external communicating devices for indirect blood contact for a prolonged period.

What is ISO 10993

European standard for biological evaluation of medical devices. Comparable to the USP, however, more elaborate (more categories and more tests). The material used for our CryoGen tubes are tested for the production of external communication devices for use during an extended period of time (min 1 day - max 30 days) for indirect contact with the path of the blood (for example, the plastic to produce a catheter tube).

EXECUTED TESTS:
- Cytotoxicity
- Sensitization
- Intracutaneous reactivity (irritation)
- Systemic toxicity
- Haemocompatibility

EP = European Pharmacopoeia is a legislative text which includes chapters and monographs to be followed in the production, preparation and marketing of products for pharmaceutical / medical applications.

What is meant by "conforms to USP Class VI"

- The United States Pharmacopeia (USP) sets standards to ensure the quality of medicines and other technologies for health care.
- Among these standards, there are those related to the Biological Reactivity tests for "elastomers, plastics and other polymeric material with which the patient may, directly or indirectly come into contact", defining a division into six classes.
- The Class VI is more rigid class and is the most widely used and accepted by the industry of medical products.
- Depending on the outcome of the analysis, the material can be used or not used for the production of medical devices.

Not required in Europe, however the majority of customers appreciate the USP approval.

What is DMF= Drug Master File

It's a technical file that is sent from the manufacturer of the product to the FDA (U.S.) in which are described:
- Production processes
- Commitments by the Director of the plants
- Product specifications (including formulation)
- Quality System
- Results of the USP tests
- List of authorized persons

Once approved, the FDA issues a number of DMF, with which it is registered in the database.

A DMF ensures consistency in formulas and production procedures.

Other Compliance

- REACH-Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles: ES.: phthalates, Low weight moleculars (known as DEHP, DBP, and BBP DIBP) are classified as toxic for breeding based on animal studies and are regulated in their use and included in the annex XIV of the REACH Regulation as "Substances of Very High Concern" (SVHC) and subject to authorization.
- CONEG (packaging and packaging waste - PPW) - Sum of Cd, Cr, Hg and Pb ⟵100 ppm.
- Directive 2000/53/EC (ELV) - Cr (VI), Hg and Pb ⟵0.1% by weight, Cd ⟵0.01% by weight.
- Directive 2011/65/EU (Restriction of use of certain hazardous substances in electrical and electronic equipment and machinery - ROHS- Cr (VI), Hg, Pb, PBB and PBDE ⟵0.1% by weight, Cd ⟵0.01 % by weight.
- Directive 2002/96/EC (Waste Electrical and Electronic Equipment - WEEE) - Annex II - No ingredients are used requires a selective waste treatment (As, Hg, PCB, PCT, CFC, HCFC, HFC, brominated FR).
- Regulation 1005/2009/EC (Substances that deplete the ozone layer) - Prohibition of CFC's, HCFC's, Halons, CCl4, Trichloroethane, HBFC's.
- U.S. Clean Air Act, Title VI, classes I and II (EPA Final Rule, Federal Register 8136, 11.02.1993) on substances that deplete the ozone layer.
- Regulation 850/2004/EC on persistent organic pollutants (POPs).
- Directives 2003/89/EC, 2006/142/EC, 2007/68/EC, amending Directive 2000/13/EC - Annex IIIa (allergens).

The materials are also declared free of animal products, without a potential risk of TSE. BSE is chronic neurological disease, degenerative and irreversible that is part of a group of diseases known as transmissible spongiform encephalopathies (TSEs) that affect various animal species, including humans.

LADR GmbH
Medizinisches Versorgungszentrum Bremen
Bereich Lebensmittel- & Umweltanalytik
Leitung: Dipl.-Biol. Thomas Weigel

DAkkS Deutsche Akkreditierungsstelle D-PL-13183-01-00

Certificato di Analisi | Certificate of Analysis

CLEARLine® Certified

Codice Prodotto / *Catalog number:* CL2ARBEPSTS(/B)

Numero di lotto / *Lot number:* 17P1005402

- **DNA umano / *Human DNA*:**
  Metodo / *Method*: Polymerase Chain Reaction
  Limiti / *Limit*: < 2 pg; meno di una cellula umana / *less than one human cell*

- **DNase**
  Metodo / *Method*: Digestione DNA / *DNA digestion*
  Limiti / *Limit*: Non rilevabile / not detectable (LOD 1.0 x 10^{-6} Kunitz-units)

- **RNase**
  Metodo / *Method*: Digestione RNA / RNA digestion
  Limiti / *Limit*: Non rilevabile / *not detectable* (LOD 1.0 x 10^{-9} Kunitz-units)

- **Inibizione PCR / *PCR inhibition*:**
  Metodo / *Method*: Polymerase Chain Reaction
  Limiti / *Limit*: Meno di 10 targets amplificabili / *Less than 10 targets amplifiable*

- **Endotossine / *Endotoxin:***
  Metodo del test / *Test method*: Cinetico turbidimetrico LAL test (Ph. Eur.) / *Kinetic-turbidimetric LAL test (Ph. Eur.)*
  Limit / *Limit*: *< 0.001 EE (EU; I.E.; I.U.) /ml*

- **ATP**
  Metodo del test / *Test method*: Test di pre-sterilizzazione / *Pre-sterilization test.* Bioburden test
  Limite / *Limit*: < 5.5 x 10^{-12} mg

I test del lotto sopra descritto hanno dimostrato la conformità ai limiti di rilevamento. Il lotto viene rilasciato per l'uso.
Testing of the above described lot showed conformity within limits of detection. The lot is released for use.

2017-04-10	**Bio1703-865**	Dr. Weigel
Data / Date	Numero di registrazione / Registration number	Dipl. Biol. Thomas Weigel

I risultati dei test si riferiscono esclusivamente agli articoli testati. Il certificato non deve essere copiato nemmeno parzialmente senza l'approvazione del laboratorio LADR GmbH.
The test results refer exclusively to the item tested. The certificate must not be copied partially without the approval of LADR GmbH.

LADR GmbH Bereich Lebensmittel- & Umweltanalytik | Friedrich-Karl-Str. 22 | D-28205 Bremen
Phone: +49 421 4307-500 | Fax: +49 421 4307-199 | E-Mail: molekularbiologie@laborzentrum-bremen.de

• Certificato di analisi • Certificate of analysis • Certificato di analisi • Certificate of analysis • Certificato di analisi •

CRYOWARE

Visit http://www.biosigma.com/cryoware.html for full details and datasheets

A complete line of cryogenic vials and boxes to store specimens at temperatures as low as -196 C°.

Biosigma CryoGen® tubes are certified Human DNA, DNase/RNase/Pyrogen/ATP/PCR Inhibitors free, sterile SAL 10^{-6} and IATA PI 650, with a unique and consecutive 1D barcode printed on the tubes' bodies.

The line also includes 2D CryoGen® tubes, in addition to 1D linear barcode, having a 2D data matrix barcode on the tubes' bottoms.

CryoGen® vials can be stored into Biosigma CryoGen® boxes, 25, 81 or 100 places, provided of 1D linear barcode printed on the box side or 2D CryoGen® boxes with also 2D matrix barcoded on boxes' bottoms.

Cryoboxes are made of polycarbonate to resist at temperatures as LOW AS -196 C°.
Autoclavable at 120 C° for 20 minutes.

Medical grade raw material certified USP Class VI, in accordance with United States Pharmacopeia and ISO 10993.

WARNING
Do not store CryoGen® tubes in liquid phase Nitrogen. Ingress of Nitrogen into the tube can occur by causing the tube to rupture when taken out of storage. May cause injury and loss of tube contents.Working Temperature: suitable for storage from general cold storage refrigeration (+4°C) down to the vapor phase of liquid nitrogen.

1D CRYOLINE

CryoGen® Tubes / **1D** linear barcode

- Human DNA, DNase, RNase, Pyrogen, ATP, PCR inhibitors free certified*
- Sterile SAL 10^{-6} *
- CE-IVD marked *
- Certified IATA PI 650
- Manufactured in Clean Room Class ISO 7 (UNI EN ISO 14644-1). Class 10000 (US FED STD 209E)
- Working Temperature: suitable for storage from general cold storage refrigeration (+4°C) down to the vapor phase of liquid nitrogen
- Tubes in Polypropylene / Caps in Polyethylene and TPV

* Certificate of analysis, Certificate of validated Beta rays treatment and Declaration of conformity CE-IVD available for download on www.biosigma.com

CLEARLine®
"Be cool, be safe, be CLEARLine"

DNase RNase · Human DNA · PCR Inhibitors · ATP · Pyrogen · Beta Ray Sterile SAL 10* EN ISO 11137 · MEDICAL GRADE

Color coded inserts are available to fit both internal and external caps for quick sample identification

Innovative internal and external screw caps are produced from medical grade polyethylene (PE) and are co-molded with a thermoplastic elastomer (TPV) to provide a 100% leak-proof seal

Produced from medical grade raw materials that will not discolor after re-sterilizing

Printed graduations for accurate measurements

White writing surface for specimen identification

Round bottom or self standing

Star shaped top cavity is engineered for use with automatic decapping equipment

Chemical resistant caps

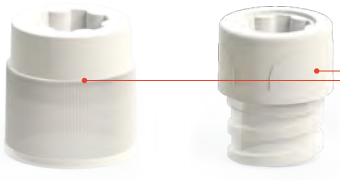
Slim profile external caps ensure better fit in standard racks and boxes

Vials and caps are autoclavable

Standard code 128 barcode on each vial includes human readable characters printed in both left and right hand orientation for easy readability by all users.

Chemical resistant polypropylene (PP) vial

Self-standing vials interlock in workstations



Our innovative screw caps eliminate leakage and contamination. Both internal and external screw caps are co-molded with a thermoplastic elastomer (TPV) layer and are 95kPa certified to provide a 100% leak-proof seal. This proprietary molding process eliminates the risk of contamination associated with brands that use separate o-rings.

Dispenser Box
500 pcs (10 bags of 50)

Inner sealed Zip bag of 50 pcs
With sterilization indicator

CryoGen® Tubes / 1D linear barcode **INTERNAL CAP Tubes**

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DNase RNase · Human DNA · PCR Inhibitors · ATP · Pyrogen · Beta Ray Sterile SAL 10⁻⁶ EN ISO 11137 · MEDICAL GRADE

CryoGen Tubes Internal cap

Sterile, DNase, RNase, Human DNA, ATP, Pyrogen free

1.2 ml 2.0 ml 4.0 ml 5.0 ml

Internal cap - case / 500

CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Internal packaging	Sale unit
CL1ARBIPSTS	1.2	4.27	Self Standing	bag / 50	case / 500
CL2ARBIPSTS	2.0	4.82	Self Standing	bag / 50	case / 500
CL2ARIPSTS	2.0	4.70	Round bottom	bag / 50	case / 500
CL4ARBIPSTS	4.0	7.62	Self Standing	bag / 50	case / 500
CL4ARIPSTS	4.0	7.50	Round bottom	bag / 50	case / 500
CL5ARBIPSTS	5.0	9.03	Self Standing	bag / 50	case / 500
CL5ARIPSTS	5.0	8.92	Round bottom	bag / 50	case / 500

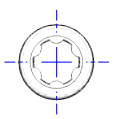
Internal cap - packaging in bulk

CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Internal packaging	Sale unit
CL1ARBIPSTS/B	1.2	4.27	Self Standing	bag / 50	carton / 4500
CL2ARBIPSTS/B	2.0	4.82	Self Standing	bag / 50	carton / 4000
CL2ARIPSTS/B	2.0	4.70	Round bottom	bag / 50	carton / 4000
CL4ARBIPSTS/B	4.0	7.62	Self Standing	bag / 50	carton / 2500
CL4ARIPSTS/B	4.0	7.50	Round bottom	bag / 50	carton / 2500
CL5ARBIPSTS/B	5.0	9.03	Self Standing	bag / 50	carton / 2000
CL5ARIPSTS/B	5.0	8.92	Round bottom	bag / 50	carton / 2000

6 different colors caps available. To order add ending as follows:
/AZ (blue) /BI(white) /G(yellow) /RO(red) /V(green) /VI(violet)

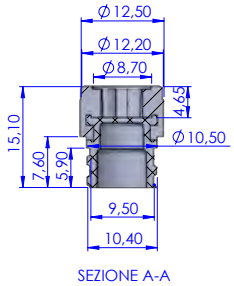
For automatic capper/decapper

Star shaped top cavity is engineered for use with automatic decapping equipment



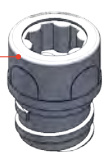
No contamination risk

Our innovative screw caps eliminate leakage and contamination. Both internal and external screw caps are co-molded with a thermoplastic elastomer (TPV) layer and are 95kPa certified to provide a 100% leak-proof seal. This proprietary molding process eliminates the risk of contamination associated with brands that use separate o-rings.



Insert for color coding

Color coded inserts are available to fit both internal and external caps for quick sample identification



CryoGen® Tubes / **1D** linear barcode **EXTERNAL CAP Tubes**

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DNase RNase · Human DNA · PCR Inhibitors · ATP · Pyrogen · Beta Ray Sterile SAL 10⁻⁶ EN ISO 11137 · MEDICAL GRADE

CryoGen Tubes External cap

Sterile, DNase, RNase, Human DNA, ATP, Pyrogen free

1.2 ml · 2.0 ml · 3.0 ml · 4.0 ml · 5.0 ml

External cap - case / 500

CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Internal packaging	Sale unit
CL1ARBEPSTS	1.2	4.02	Self Standing	bag / 50	case / 500
CL2ARBEPSTS	2.0	4.56	Self Standing	bag / 50	case / 500
CL2AREPSTS	2.0	4.45	Round bottom	bag / 50	case / 500
CL3ARBEPSTS	3.0	6.92	Self Standing	bag / 50	case / 500
CL4ARBEPSTS	4.0	7.36	Self Standing	bag / 50	case / 500
CL5ARBEPSTS	5.0	8.76	Self Standing	bag / 50	case / 500

External cap - packaging in bulk

CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Internal packaging	Sale unit
CL1ARBEPSTS/B	1.2	4.02	Self Standing	bag / 50	carton / 4500
CL2ARBEPSTS/B	2.0	4.56	Self Standing	bag / 50	carton / 4000
CL2AREPSTS/B	2.0	4.45	Round bottom	bag / 50	carton / 4000
CL3ARBEPSTS/B	3.0	6.92	Self Standing	bag / 50	carton / 2500
CL4ARBEPSTS/B	4.0	7.36	Self Standing	bag / 50	carton / 2500
CL5ARBEPSTS/B	5.0	8.76	Self Standing	bag / 50	carton / 2000

6 different colors caps available. To order add ending as follows:
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For automatic capper/decapper

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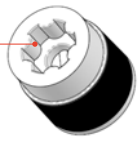

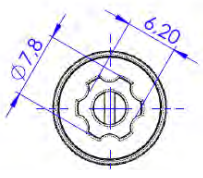

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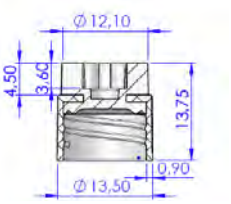

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