

Just like your therapies, the CellSeal® Cryogenic Vial is different, radical, and innovative

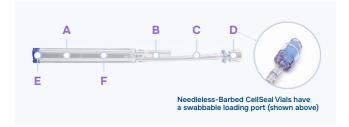
The difference is in its unique design. CellSeal Cryogenic Vials ("CellSeal vials") are created from USP class VI materials chosen for their chemical resistance, extreme durability even under true cryogenic temperatures, and comparable cell recovery rates. The difference in the design means you get:

- Consistency: uniform freezing and thawing profile.
- Durability: fracture resistant.
- Safety: heat sealed to prevent contamination; closed-system allows for sterile processing.
- Usability: maximum cell recovery.
- Flexibility: multiple fill ports and sizes.
- Scalability: choice of manual or automated filling; compatible with off-the-shelf systems, such as the Signata CT-5® Fluid Management System.

With the patented CellSeal vial design, contamination risks are reduced and you gain a level of control from early stage product concepts through commercialization – that your therapies and testing protocols demand.

Unlock the tools to build your therapies with closed-system CellSeal vials

- A Cyclic olefin copolymer (COC) material makes vials fracture resistant at cryopreservation storage temperatures down to -196°C.
- **B** Microbial-barrier vent provides ambient pressure fill and prevents contamination.
- C Hermetically sealed vials protect against contamination in liquid or vapor-phase nitrogen storage. The CellSeal EVA tubing can be assembled on a manifold and filled in a closed-system.
- D Syringe and pipette fill port options provide compatibility with your procedure protocols. Two types of loading ports are available for needleless Luer fittings (swabbable and capped).
- E Conical-shaped bottom allows for maximum recovery
- F Volume sizes, 2 mL and 5 mL, scale from manual filling to large-scale automation.



Clear Access CellSeal Vial shown above has a capped loading port (D).

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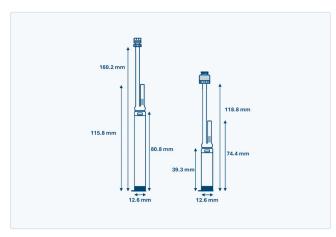
CellSeal Cryogenic Vials

Details

- Certificate of Compliance per lot provided with each purchase.
- Ideal for both autologous and allogeneic products.
- Vials showed low levels of extractables during a leachables study.
- Vials have undergone extensive biological safety testing.
- Expiration date is three years from the date of manufacture.



The fill line of a Needleless-Barbed CellSeal Vial is shown being sealed with the RF Tube Sealing System to ensure a solid weld and container closure integrity (CCI) for cryogenic storage. CellSeal Freezing Containers are also shown.



Clear Access CellSeal Vial (capped loading port), 5 mL, shown left; and the Needleless-Barbed CellSeal Vial (swabbable loading port), 2 mL, shown right.



A Needleless-Barbed CellSeal Vial with a swabbable loading port is shown connected to a standard Luer-lock syringe.

CellSeal Vial Accessories Available:

- CellSeal Freezing Containers
- Radio Frequency (RF) Tube Sealing System
- Cryogenic Storage Boxes
- Storage Racks
- Vial Adapters

Specifications

Measurement	2 mL vials (mm)	5 mL vials (mm)
Fill Line Length	79.4	79.4
Fill Line OD X ID (at top)	5.79 x 2.95	5.79 x 2.95
Vent Line Length	35.0	35.0
Vent Line OD x ID (at top)	4.65 x 3.18	4.65 x 3.18
Vial Body Height x Diameter	39.3 x 12.6	80.8 x 12.6
Fill Line + Vial Body Height	118.8	160.2
Vent Line + Vial Body Height	74.4	115.8
Residual volume in vial after sample retrieval with needle recovery	< 50 μL	< 50 μL

CellSeal vials offer exceptional flexibility during fill & finish, cryostorage, shipping, and controlled thawing. Contact a BioLife Solutions Representative to find out more.



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