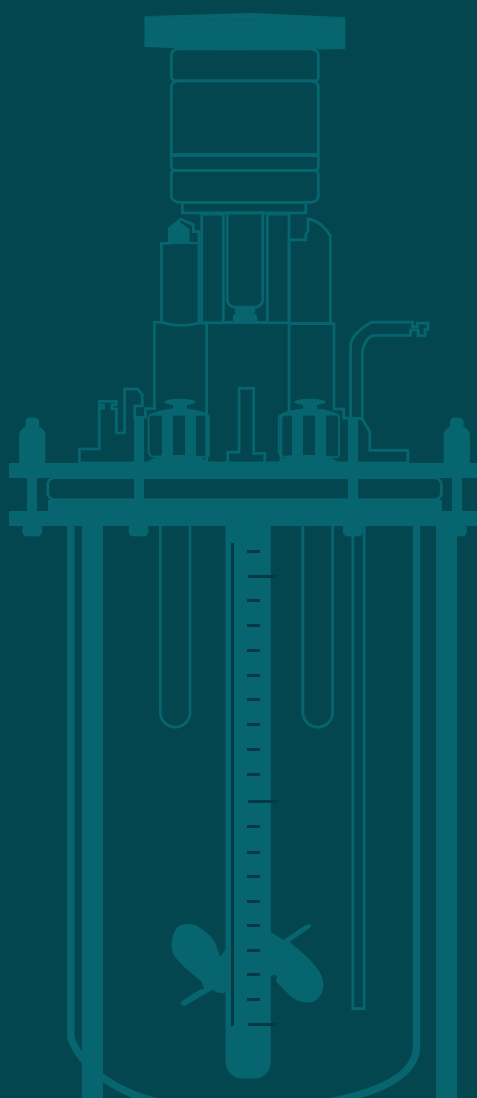


CytoLinX® GB

CytoLinX® GB 1-20 L Benchtop
Glass Bioreactor



CytoLinX® GB 1-20 L Benchtop Glass Bioreactor

The CytoLinX® GB benchtop glass bioreactors are available in 1 L, 3 L, 7 L, 15 L, and 20 L with a new design and high flexibility, allowing the use of existing brands of electrodes, tubes, gas distributors and impeller. The bioreactor is composed of a glass vessel and a control cabinet; it is widely used in the upstream process development of biologics, suitable for exploration of high-throughput parameter conditions and optimization of the culture process, and applicable for the culture of various cells, including suspension cells, adherent cells, plant cells, and insect cells.



Figure 1 CytoLinX® GB 1-20 L Benchtop Glass Bioreactor

CytoLinX® GB 1-20 L for ADC Conjugation Process Optimization

BioLink provides an automated platform for the optimization of the ADC conjugation process: Features such as **precise temperature control and programmable automatic dosing** ensure high repeatability and stability of the reaction system, and the kettle design is more feasible for manufacturing and linear scale-up. The synthesis platform has excellent scalability and can be equipped with online pH sensors to enhance process development monitoring and control. In addition, **the automatic program** is designed to significantly avoid errors caused by manual operations, thereby ensuring consistency between synthesis batches.

CytoLinX® GB 1-20 L for mRNA Production

The development difficulty and the key technical points of mRNA technology lie in the synthetic modification and delivery systems. In Vitro Transcription (IVT) is the most efficient method for batch synthesis of mRNA. It is a relatively complex enzymatic process that requires the addition of enzymes, nucleotides, and other related reagents, in addition to the DNA template. BioLink provides a fully automated IVT synthesis platform that enables efficient linear scale-up from lab-scale development to scale-up production. With features such as **precise temperature control and programmable automatic dosing**, the CytoLinX® GB benchtop glass bioreactors ensure the high **repeatability and stability** of the synthesis system, and the **automatic program design** significantly avoids the errors caused by manual operations to ensure the consistency between synthesis batches.

CytoLinX® GB Control Cabinet

The CLX-GB control cabinet includes control hardware and underlying hardware modules. The control hardware is built with Siemens win CC framework, which meets requirements from development to manufacturing and complies with 21 CFR Part 11.

The underlying hardware modules are all built with imported brands, featuring high stability. In addition, a variety of PAT tools can be flexibly configured to meet different customer needs and application scenarios.

A CLX-GB control cabinet can be interfacing with different models of glass vessels, achieving versatile use with a single unit.

The CLX-GB vessel adopts a top stirring mode and allows a flexible combination of microbubble and macrobubble, promoting the optimization of the culture process, further improving cell density as well as maintaining cell viability.

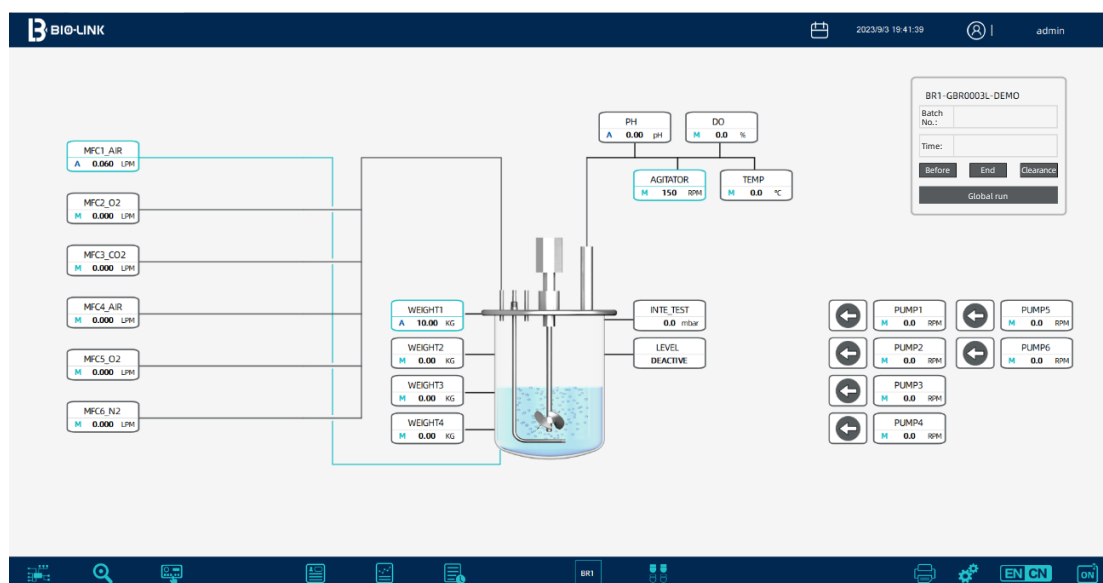


Figure 2 CytoLinX® GB main control interface

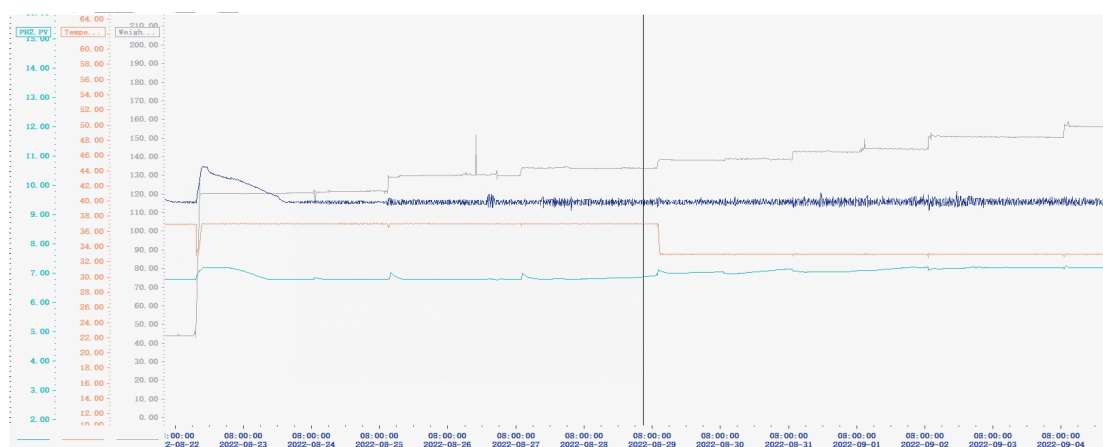


Figure 3 CytoLinX® GB culture results

Features of CytoLinX® GB 1-20 L Benchtop Glass Bioreactor

► High configurability

High flexibility, high compatibility, and more options for process development and characterization

► Wide application

Customizable upon special process requirements of customers, applicable in ADC and mRNA fields

► High ruggedness

High borosilicate glass vessel, high-temperature resistant, corrosion resistant and easy to clean



► High stability

Excellent equipment control stability, temperature, pH and DO linkage effect

► High selectivity

Macrobubble and microbubble available to meet various process requirements

CytoLinX® GB Glass Vessel

The function and structure of the vessel are carefully designed to meet the actual requirements of users. Vessels are available in 1 L, 3 L, 7 L, 15 L, 20 L, and standard headplates and connectors can meet the customized requirements of different experiments. All components in contact with liquid are made of high-quality 316L stainless steel, with the surface mirror-polished and electrochemically polished.

CytoLinX® Integrity Tester

The culture process using bioreactors requires an absolutely sterile environment. Therefore, it is necessary to conduct an integrity test on the culture container to ensure the biosafety of the culture process. The integrity test can ensure the correct installation and integrity of the components in the culture container. The CytoLinX® integrity tester is easy to use, automated, accurate and reliable. It provides a simple and intuitive user experience, as well as flexible customization options, perfectly fitting your process requirements.



Standard Configuration of CytoLinX® GB

	Total Volume	1 L	3 L	7 L	15 L	20 L
Vessel (single-wall)	Max. working volume	0.8 L	2.4 L	5.6 L	12 L	16 L
	Min. working volume	0.2 L	0.6 L	1.4 L	3 L	8 L
	Working diameter to height ratio (H/D)	1.5/1	1.5/1	1.8/1	1.45/1	1.5/1
	Material	High silicon borate				
Vessel (jacket)	Max. working volume	0.8 L	2.4 L	5.6 L	12 L	NA
	Min. working volume	0.2 L	0.6 L	1.4 L	3 L	NA
	Working diameter to height ratio (H/D)	1.5/1	1.5/1	1.8/1	1.4/1	NA
	Jacket volume	0.7 L	1.2 L	2.3 L	10 L	NA
	Material	High silicon borate				
Vessel Headplate	Port	M 30*1 M 18*1.5*3 10 mm*6 6 mm*3	M 30*1 M 18*1.5*6 12 mm*2 10 mm*9	M 30*1 M 18*1.5*6 12 mm*2 10 mm*10	69 mm*1 27 mm*6 12 mm*2 10 mm*10	69 mm*1 27 mm*6 12 mm*2 10 mm*10
	Material	SS316L				
Agitation System	Mode	Top servo brushless motor				
	Speed	0-1500 rpm				
Sensor	pH	Hamilton smart pH electrode, VP8 joint				
	DO	Hamilton smart optical dissolved oxygen electrode, VP8 joint				
	Temperature	Pt 100, Grade A, 0-150° C				
	Level/antifoam	Resistance type, automatic level control for adding antifoam emulsion (optional)				
	Others	pCO ₂ electrode (optional), cell density electrode (optional), conductivity (optional), Raman electrode (optional), etc.				
Gas Control	Aeration mode	Overlay/Sparge				
	Gas type	Air, O ₂ , CO ₂ , N ₂				
	Control method	0-6 channel mass flow meter (MFC) /0-4 channel rotameter				
	Gas distributor	L-type macrobubble/annular macrobubble/microbubble (5-200 um)				
	Vent	Stainless steel gas condenser (optional)				
Peristaltic Pump	Peristaltic pump	2-4 variable speed pumps				
	Speed	0.1-300 rpm				
	Reserved external pump port	0-2 variable speed pumps (optional)				
Temperature	Control method	Electric heating blanket (Single-wall vessel)/TCU heating (jacketed vessel)				

Weighing	Reserve external weight port	0-4 variable speed weights (optional)
Control System	Controller	Industrial PLC
	Interface	23" PC
	Compliance	Conforming to 21 CFR PART 11
Integrity Test	Integrity tester	Detection range: 0-350 mbar (optional)

Can be customized according to user needs. For special specifications please contact the local technical support.

OPC DA/OPC UA Communication Protocol Overview

Features	OPC DA	OPC UA	Configuration requirements for BioLink bioreactor
Support Data Types	Real-time data only	Real - time data + historical data + alarms information	<ul style="list-style-type: none"> ✓ OPC DA is free ✓ OPC UA increases authorization fees ✓ Biolink systems with OPC DA or OPC UA, the computer configuration needs to be upgraded to Dell industrial computer. The specific price will be quoted by the product department based on the actual configuration
Typical Applications	Integrate with third-party SCADA and monitoring system data	Integrate data with third-party SCADA systems, monitoring systems, IOT, and cloud integrated systems	

Replacement Information for Vessels and Accessories

Volume	Series	Description
2-7 L	AGB02-07 Series	Entire vessel assembly replaceable (including glass vessel, L-type micro sparger, annular macro sparger, micro sparger, agitator assembly, and impeller)
15-20 L	AGB15 Series	Replaceable accessories (including L-type macro sparger, annular macro sparger, micro sparger, and impeller)
2-10 L	SGB02-10L Series	Entire vessel assembly replaceable (including glass vessel, L-type macro sparger, annular macro sparger, 4-port feed port, PG13.5 single-port feed port, agitator assembly, adjustable pitched-blade impeller, flat-blade turbine impeller, and coupling)

For more information and ordering details, please contact Technical Support or the Product Department.

Ordering Information

1 L benchtop glass bioreactor

1 L Benchtop Glass Bioreactor	Cat.No.	Specification
Glass reactor		
1 L glass reactor, single-wall (bracket, vessel, stainless steel headplate and bracket)	CGB01LGS-001	1 L
1 L glass reactor, jacket (bracket, vessel, stainless steel headplate and bracket)	CGB01LGJ-001	1 L
1 L single-wall glass reactor	CGB01LVS-001	1 L
1 L jacketed glass reactor	CGB01LVJ-001	1 L
1 L single-wall, jacketed universal stainless steel headplate	CGB01LSR-001	1 L
1 L single-wall stainless steel bracket	CGB01LSR-002	1 L
1 L jacketed stainless steel bracket	CGB01LSR-015	1 L
Agitation		
1 L agitator assembly	CGB01LSR-003	OD: M30
1 L marine impeller	CGB01LSR-004	OD: 38 mm
1 L flat blade turbine impeller	CGB01LSR-005	OD: 38 mm
1 L baffle	CGB01LSR-006	OD: 6 mm
Gas		
1 L bottom intake tube (macrobubble)	CGB01LSR-007	OD: 10 mm
1 L annular bottom intake tube (macrobubble)	CGB01LSR-013	OD: 10 mm
1-20 L overlay assembly	CGB01-20LSR-001	OD: 10 mm
Sensors and related accessories		
1 L Hamilton ARC pH sensor	CGB01LER-001	160 mm long
1 L Hamilton ARC DO sensor	CGB01LER-002	160 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
1 L liquid level/foam sensor	CGB01LER-006	OD: 10 mm
1 L stainless steel temperature sleeve	CGB01LSR-009	OD: 10 mm
1-7 L electrode adapter	CGB01-07LSR-002	OD: M18*1.5
Vent		
1-7 L gas condenser	CGB01-07LSR-001	OD: M18*1.5

1 L Benchtop Glass Bioreactor	Cat.No.	Specification
Cooler		
1 L heat exchange tube	CGB01LSR-014	OD: 10 mm
Feed and sampling line		
1-7 L three-inlet components	CGB01-07LSR-004	OD: M18*1.5
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
1 L harvest tube	CGB01LSR-010	OD: 10 mm
1 L sampling tube	CGB01LSR-011	OD: 10 mm
Plug		
1-7 L M18*1.5 plug	CGB01-07LSR-003	OD: M18*1.5
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1 L 6-mm plug	CGB01LSR-012	OD: 6 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
Heating blanket		
1 L heating blanket	CGB01LER-004	1 L: 360*100, 230V, 80W

3 L benchtop bioreactor

3 L Benchtop Bioreactor	Cat.No.	Specification
Glass reactor		
3 L glass reactor, single-wall (bracket, vessel, stainless steel headplate and bracket)	CGB03LGS-001	3 L
3 L glass reactor, jacket (bracket, vessel, stainless steel headplate and bracket)	CGB03LGJ-001	3 L
3 L single-wall glass reactor	CGB03LVS-001	3 L
3 L jacketed glass reactor	CGB03LVJ-001	3 L
3 L single-wall, jacketed universal stainless steel headplate	CGB03LSR-001	3 L
3 L single-wall stainless steel bracket	CGB03LSR-002	3 L
3 L jacketed stainless steel bracket	CGB03LSR-004	3 L
Agitation		
3 L agitator assembly	CGB03LSR-005	OD: M30
3 L marine impeller	CGB03LSR-006	OD: 45 mm
3 L flat blade turbine impeller	CGB03LSR-007	OD: 45 mm
3 L baffle	CGB03LSR-008	OD: 10 mm
Gas		
3 L bottom intake tube (macrobubble)	CGB03LSR-009	OD: 10 mm
3 L bottom intake tube (microbubble)	CGB03LSR-010	OD: 10 mm
3 L annular bottom intake tube (macrobubble)	CGB03LSR-015	OD: 10 mm
1-20 L overlay assembly	CGB01-20LSR-001	OD: 10 mm
1-7 L microbubble tip, 20 µm	CGB01-07LSR-006	
1-7 L microbubble tip, other pore size	Customized	
Sensors and related accessories		
3 L Hamilton ARC pH sensor	CGB03LER-001	225 mm long
3 L Hamilton ARC DO sensor	CGB03LER-002	225 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
3 L liquid level/foam sensor	CGB03LER-005	OD: 10 mm
1-7 L electrode adapter	CGB01-07LSR-002	OD: M18*1.5
3 L stainless steel temperature sleeve	CGB03LSR-011	OD: 10 mm

3 L Benchtop Bioreactor	Cat.No.	Specification
Vent		
1-7 L gas condenser	CGB01-07LSR-001	OD: M18*1.5
Cooler		
3 L heat exchange tube	CGB03LSR-012	OD: 10 mm
Feed and sampling line		
1-7 L three-inlet components	CGB01-07LSR-004	OD: M18*1.5
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
3 L harvest tube	CGB03LSR-013	OD: 10 mm
3 L sampling tube	CGB03LSR-014	OD: 10 mm
Plug		
1-7 L M18*1.5 plug	CGB01-07LSR-003	OD: M18*1.5
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
Heating blanket		
3 L heating blanket	CGB03LER-004	3 L: 485*180, 230V, 100W

7 L benchtop bioreactor

7 L Benchtop Bioreactor	Cat.No.	Specification
Glass reactor		
7 L glass reactor, single-wall (bracket, vessel, stainless steel headplate and bracket)	CGB07LGS-001	7 L
7 L glass reactor, jacket (bracket, vessel, stainless steel headplate and bracket)	CGB07LGJ-001	7 L
7 L single-wall glass reactor	CGB07LVS-001	7 L
7 L jacketed glass reactor	CGB07LVJ-001	7 L
7 L single-wall, jacketed universal stainless steel headplate	CGB07LSR-001	7 L
7 L single-wall stainless steel bracket	CGB07LSR-002	7 L
7 L jacketed stainless steel bracket	CGB07LSR-004	7 L
Agitation		
7 L agitator assembly	CGB07LSR-005	OD: M30
7 L marine impeller	CGB07LSR-006	OD: 60 mm
7 L flat blade turbine impeller	CGB07LSR-007	OD: 60 mm
7 L baffle	CGB07LSR-008	OD: 10 mm
Gas		
7 L bottom intake tube (macrobubble)	CGB07LSR-009	OD: 10 mm
7 L bottom intake tube (microbubble)	CGB07LSR-010	OD: 10 mm
7 L annular bottom intake tube (macrobubble)	CGB07LSR-015	OD: 10 mm
1-20 L overlay assembly	CGB01-20LSR-001	OD: 10 mm
1-7 L microbubble tip, 20 µm	CGB01-07LSR-006	
1-7 L microbubble tip, other pore size	Customized	
Sensors and related accessories		
7 L Hamilton ARC pH sensor	CGB07LER-001	325 mm long
7 L Hamilton ARC DO sensor	CGB07LER-002	325 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
7 L liquid level/foam sensor	CGB07LER-005	OD: 10 mm
1-7 L electrode adapter	CGB01-07LSR-002	OD: M18*1.5
7 L stainless steel temperature sleeve	CGB07LSR-011	OD: 10 mm

7 L Benchtop Bioreactor	Cat.No.	Specification
Vent		
1-7 L gas condenser	CGB01-07LSR-001	OD:M18*1.5
Cooler		
7 L heat exchange tube	CGB07LSR-012	OD:10 mm
Feed and sampling line		
1-7 L three-inlet components	CGB01-07LSR-004	OD:M18*1.5
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD:10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD:12 mm
7 L harvest tube	CGB07LSR-013	OD:10 mm
7 L sampling tube	CGB07LSR-014	OD:10 mm
Plug		
1-7 L M18*1.5 plug	CGB01-07LSR-003	OD: M18*1.5
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
Heating blanket		
7 L heating blanket	CGB07LER-004	7 L: 575*165, 230V, 178W

15 L benchtop bioreactor

15 L Benchtop Bioreactor	Cat.No.	Specification
Glass reactor		
15 L glass reactor, single-wall (bracket, vessel, stainless steel headplate and bracket)	CGB15LGS-001	15 L
15 L glass reactor, jacket (bracket, vessel, stainless steel headplate and bracket)	CGB15LGJ-001	15 L
15 L single-wall glass reactor	CGB15LVS-001	15 L
15 L jacketed glass reactor	CGB15LVJ-001	15 L
15 L&20 L single-wall, jacketed universal stainless steel headplate	CGB15&20LSR-008	15 L
15 L single-wall stainless steel bracket	CGB15LSR-002	15 L
15 L jacketed stainless steel bracket	CGB15LSR-004	15 L
Agitation		
15 L agitator assembly	CGB15LSR-005	OD: 69 mm
15&20 L marine impeller	CGB15&20LSR-004	OD: 74 mm
15&20 L flat blade turbine impeller	CGB15&20LSR-005	OD: 75 mm
15 L baffle	CGB15LSR-006	OD: 10 mm
Gas		
15 L bottom intake tube (macrobubble)	CGB15LSR-007	OD: 10 mm
15 L bottom intake tube (microbubble)	CGB15LSR-008	OD: 10 mm
15 L annular bottom intake tube (macrobubble)	CGB15LSR-013	OD: 10 mm
1-20 L overlay assembly	CGB01-20LSR-001	OD: 10 mm
15&20 L microbubble tips, 20 um	CGB15&20LSR-009	
15&20 L microbubble tips, other pore size	Customized	
Sensors and related accessories		
15&20 L Hamilton ARC pH sensors	CGB15&20LER-001	425 mm long
15&20 L Hamilton ARC DO sensors	CGB15&20LER-002	425 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
15&20 L liquid level/foam sensors	CGB15&20LER-004	OD: 10 mm
15&20 L electrode adapters	CGB15&20LSR-002	OD: 27 mm
15 L stainless steel temperature sleeve	CGB15LSR-009	OD: 10 mm

15 L Benchtop Bioreactor	Cat.No.	Specification
Vent		
15&20 L gas condenser	CGB15&20LSR-001	OD: 27 mm
Cooler		
15 L heat exchange tube	CGB15LSR-010	OD: 10 mm
Feed and sampling line		
15&20 L three-inlet components	CGB15&20LSR-003	OD: 27 mm
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
15 L harvest tube	CGB15LSR-011	OD: 10 mm
15 L sampling tube	CGB15LSR-012	OD: 10 mm
Plug		
15 L&20 L 27-mm plug	CGB15&20LSR-006	OD: 27 mm
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
Heating blanket		
15 L&20 L heating blankets	CGB015&20LER-004	15 L&20 L: 760*200, 230V, 383W

20 L benchtop bioreactor

20 L Benchtop Bioreactor	Cat.No.	Specification
Glass reactor		
20 L glass reactor, single-wall (bracket, vessel, stainless steel headplate and bracket)	CGB20LGS-001	20 L
20 L single-wall glass reactor	CGB20LVJ-001	20 L
15 L&20 L single-wall, jacketed universal stainless steel headplate	CGB15&20LSR-008	20 L
20 L single-wall stainless steel bracket	CGB20LSR-002	20 L
Agitation		
20 L agitator assembly	CGB20LSR-003	OD: 69 mm
15&20 L marine impeller	CGB15&20LSR-004	OD: 74 mm
15&20 L flat blade turbine impeller	CGB15&20LSR-005	OD: 75 mm
20 L baffle	CGB20LSR-004	OD: 10 mm
Gas		
20 L bottom intake tube (macrobubble)	CGB20LSR-005	OD: 10 mm
20 L bottom intake tube (microbubble)	CGB20LSR-006	OD: 10 mm
20 L annular bottom intake tube (macrobubble)	CGB20LSR-011	OD: 10 mm
1-20 L overlay assembly	CGB01-20LSR-001	OD: 10 mm
15&20 L microbubble tips, 20 um	CGB15&20LSR-009	
15&20 L microbubble tips, other pore size	Customized	
Sensors and related accessories		
15&20 L Hamilton ARC pH sensors	CGB15&20LER-001	425 mm long
15&20 L Hamilton ARC DO sensors	CGB15&20LER-002	425 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
15&20 L liquid level/foam sensors	CGB15&20LER-004	OD: 10 mm
15&20 L electrode adapters	CGB15&20LSR-002	OD: 27 mm
20 L stainless steel temperature sleeve	CGB20LSR-007	OD: 10 mm
Vent		
15&20 L gas condenser	CGB15&20LSR-001	OD: 27 mm
Cooler		
20 L heat exchange tube	CGB20LSR-008	OD: 10 mm

20 L Benchtop Bioreactor	Cat.No.	Specification
Feed and sampling line		
15&20 L three-inlet components	CGB15&20LSR-003	OD: 27 mm
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
20 L harvest tube	CGB20LSR-009	OD: 10 mm
20 L sampling tube	CGB20LSR-010	OD: 10 mm
Plug		
15&20 L 27-mm plug	CGB15&20LSR-006	OD: 27 mm
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
Heated blanket		
15&20 L heated blankets	CGB015&20LER-004	15 L&20 L: 760*200, 230V, 383W
Supporting device		
Integrity tester	CGB01-20LIT-001	Suitable for 1-20 L vessels
TCU	CGB01-20LTC-001	Suitable for 1-15 L jacketed vessel and benchtop agitator

AGB Series Benchtop Bioreactor

Name	Cat. No.	Volume	Remarks
Glass reactor			
3L single-wall glass reactor (bracket, vessel, stainless steel headplate and bracket)	AGB03LGS-001	3L	The entire set is interchangeable.
3L jacketed glass reactor (bracket, vessel, stainless steel headplate and bracket)	AGB03LGJ-001	3L	
7L single-wall glass reactor (bracket, vessel, stainless steel headplate and bracket)	AGB07LGS-001	7L	
7L jacketed glass reactor (bracket, vessel, stainless steel headplate and bracket)	AGB07LGJ-001	7L	
Glass vessel			
3L single-wall glass vessel	CGB03LVS-001	3L	Compatible with CGB glass vessel catalog numbers
3L jacketed glass vessel	CGB03LVJ-001	3L	
7L single-wall glass vessel	CGB07LVS-001	7L	
7L jacketed glass vessel	CGB07LVJ-001	7L	
Agitation			
3 L agitator assembly	AGB03LSR-001	3L	AGB series catalog numbers
7 L agitator assembly	AGB07LSR-001	7L	
Impeller			
3 L marine impeller	CGB03LSR-006	3L	Compatible with CGB glass vessel catalog numbers
7 L marine impeller	CGB07LSR-006	7L	
15&20 L marine impeller	CGB15&20LSR-004	15&20L	
3 L flat blade turbine impeller	CGB03LSR-007	3L	
7 L flat blade turbine impeller	CGB07LSR-007	7L	
15&20 L flat blade turbine impeller	CGB15&20LSR-005	15&20L	
Gas			
3 L bottom intake tube (macrobubble)	CGB03LSR-009	3L	Compatible with CGB glass vessel catalog numbers
7 L bottom intake tube (macrobubble)	CGB07LSR-009	7L	
15 L bottom intake tube (macrobubble)	CGB15LSR-007	15L	
20 L bottom intake tube (macrobubble)	CGB20LSR-005	20L	
3 L annular bottom intake tube (macrobubble)	CGB03LSR-015	3L	
7 L annular bottom intake tube (macrobubble)	CGB07LSR-015	7L	
15 L annular bottom intake tube (macrobubble)	CGB15LSR-013	15L	
20 L annular bottom intake tube (macrobubble)	CGB20LSR-011	20L	
3 L bottom intake tube (microbubble)	CGB03LSR-010	3L	
7 L bottom intake tube (microbubble)	CGB07LSR-010	7L	
15 L bottom intake tube (microbubble)	CGB15LSR-008	15L	
20 L bottom intake tube (microbubble)	CGB20LSR-006	20L	

SGB Series Benchtop Bioreactor

Name	Cat. No.	Volume	Remarks
Glass reactor			
2 L single-wall glass reactor (bracket, vessel, stainless steel headplate and bracket)	SGB02LGS-001	2L	The entire set is interchangeable.
2 L jacketed glass reactor (bracket, vessel, stainless steel headplate and bracket)	SGB02LGJ-001	2L	
Glass vessel			
2 L single-wall glass vessel	SGB02LVS-001	2L	SGB series catalog numbers
2 L jacketed glass vessel	SGB02LVJ-001	2L	
Coupling			
1-10 L coupling	SGB01-10LSR-001	1-10L	SGB series catalog numbers
Impeller			
2 L marine adjustable impeller (default 45°)	SGB02LSR-005	2L	SGB series catalog numbers
5 L marine adjustable impeller (default 45°)	SGB05LSR-005	5L	
10 L marine adjustable impeller (default 45°)	SGB10LSR-015	10L	
2 L flat blade turbine impeller	SGB02LSR-006	2L	
5 L flat blade turbine impeller	SGB05LSR-006	5L	
10 L flat blade turbine impeller	SGB10LSR-016	10L	
Gas			
2 L bottom intake tube (macrobubble)	SGB02LSR-008	2L	SGB series catalog numbers
5 L bottom intake tube (macrobubble)	SGB05LSR-008	5L	
10 L bottom intake tube (macrobubble)	SGB10LSR-006	10L	
2 L annular bottom intake tube (macrobubble)	SGB02LSR-014	2L	
5 L annular bottom intake tube (macrobubble)	SGB05LSR-014	5L	
10 L annular bottom intake tube (macrobubble)	SGB10LSR-012	10L	
2 L bottom intake tube (microbubble)	SGB02LSR-009	2L	
5 L bottom intake tube (microbubble)	SGB05LSR-009	5L	
10 L bottom intake tube (microbubble)	SGB10LSR-007	10L	
Accessories			
1-10 L four-inlet feed	SGB01-10LSR-004	1-10L	SGB series catalog numbers
1-10 L PG13.5 single-inlet feed	SGB01-10LSR-009	1-10L	

*For other accessories, please contact Technical Support or the Product Department.

Validation Services

Service Name	Service Code	Cat.No.
GB (Benchtop Glass Bioreactor) Standard Factory Acceptance Test (FAT)	11.59.82.01.0001	CGBFAT01
GB (Benchtop Glass Bioreactor) Standard Installation and Operational Qualification (IQOQ)	11.59.82.01.0003	CGBIQOQ01
GB (Benchtop Glass Bioreactor) Standard Design Qualification (DQ)	11.59.82.01.0006	GBDQ02
GB (Benchtop Glass Bioreactor) Standard Risk Assessment (RA)	11.59.82.01.0008	GBRA02
GB (Benchtop Glass Bioreactor) Standard Computerized Systems Validation (CSV)	11.59.82.01.0010	GBCSV02

The table shows standard validation services. For customized services, please contact local technical support

 info@biolink.com

BioLink is the trademark of all operating companies offering services of Bio-Link Biological Applied Technologies (Shanghai) Co., Ltd.; CytoLinX is the registered trademark of BioLink products.

© 2025 All sales of products and services must abide by the terms and requirements of sale of all BioLink operating companies.

BioLink provides sales and application support for all products. BioLink reserves the right to change the quantities and functions described in this document. For the latest information, please contact BioLink.

Document no.: BLK-BR-20250904V4-01-EN