

BioWhittaker® PowerCHO™ Chemically Defined, Serum-free Powder Kits

Instructions for Use

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I. Introduction

PowerCHO™- 1, PowerCHO™-2, and PowerCHO™ Advance Media are chemically defined, serum-free, protein-free, non-animal origin media designed to support the growth of CHO cell lines. They can support growth of CHO K1, DXB11, and DG44. They are free of hydrolysate, contain a low amount of recombinant human insulin and support high-density growth with superior longevity and production. Downstream processing is simplified, as the only proteins present in supernatant are produced by the cells themselves.

The PowerCHO™ Powder Media are free of glutamine, hypoxanthine, thymidine and phenol red.

NOTE: The PowerCHO™ Media are also available in 1L bottle liquid formulations. See related products below.

For answers to frequently asked questions and citations regarding these products, please visit our knowledge center: <https://knowledge.lonza.com>

II. Kit Contents

NOTE: Lonza manufactures PowerCHO™ Powder Media in both the United States and Europe. WPW part numbers are manufactured in the US; BE and VPW part numbers are manufactured in Europe.

PowerCHO™ Advance Media

	Part #/Size	(BE)15-1027D 10 L	(BE)15-1027J 100 L
Basal Powder	WPW-1027D	1	-
	WPW-1027J	-	1
Insulin 5 mg/mL	BE02-033E20 (20 mL)	1	-
	BE02-033E (100 mL)	-	2
Lipids	BE13-668Z (add 5.6 mL of the 7ml)	1	-
	BE13-668C (35 mL)	-	2

PowerCHO-1™ Media

	Part #/Size	15-770F 50 L
Basal Powder	WPW-101F	1
Insulin 5 mg/mL (100 mL)	02-033E	1
Lipids (35 mL)	BE13-668C	1

PowerCHO™-2 Media

	Part #/Size	BE15-771ND	BE15-771NF	BE15-771NJ
		10 L	50 L	100 L
Basal Powder	WPW-088D or VPW-088D	1	-	-
	VPW-088F	-	1	-
	WPW-088J or VPW-088J	-	-	1
Insulin 5 mg/mL	BE02-033E20 (20 mL)	1	-	-
	02-033E or BE02-033E (100 mL)	-	1	2
Lipids	BE13-668Z (5.6 mL)	1	-	-
	BE13-668C (35 mL)	-	1	2
Fe Citrate	BE02-059E (100 mL)	1	-	-
	BE02-059F (500 mL)	-	1	-
	BE02-059Q (1 L)	-	-	1
PEG 20000	VPW-070D (0.44g)	1	-	-
	VPW-070F (2.2g)	-	1	-
	VPW-070J (4.4g)	-	-	1

III. Instructions for Use

Reconstitute powder as follows to make 10 L, 50 L or 100 L of liquid PowerCHO™ Medium.

- Select a suitable container able to accommodate the final volume of medium. Fill to 90% final volume with distilled water at 20°C, i.e. 9 L, 45 L or 90 L.
- While stirring, add the basal powder to the container. Rinse the powder container with a small volume of water and add to the vessel.

- Continue mixing until the powder is completely dissolved. Please note that PowerCHO™ Powder may take longer to dissolve than other Lonza powders due to its rich formulation.

Once the basal powder is completely dissolved, add insulin and lipids only as described in Table 1 (PowerCHO™ Advance) or Table 2 (PowerCHO™-1) or insulin, lipids, Fe citrate, PEG 20000 and NaHCO₃ as described in Table 3 (PowerCHO™-2 Media).

NOTE: When thawed, insulin should be briefly shaken before use. Medium may appear cloudy until NaHCO₃ is added.

- Add L-glutamine or UltraGlutamine (not supplied) to the medium, at 4 to 8 mM, as appropriate for your process.
- Stop mixing as soon as dissolution is complete. Adjust pH to approximately 7.00 with NaOH (not supplied). Add water to reach the final volume.
- Immediately filter into a sterile container using an 0.2 µM absolute filter. We recommend using a Sartopure™ 0.65µM pre-filter or equivalent connected to a Sartopure™ 0.2µM filter or equivalent. Size of pre-filter must be adapted according to batch size.
- Store liquid medium at 2-8°C in the dark.

IV. Storage Conditions for Individual Components

- PowerCHO™-1 (WPW-101F), PowerCHO™-2 (WPW-088, VPW-088) and PowerCHO™ Advance (WPW-1027 VPW-1027) basal powder should be stored at 2-8°C in dry conditions.
- Insulin (02-033) should be stored at < -10°C.
- Lipids (13-668) should be stored at 2-8°C.
- Fe citrate (02-059) should be stored at 15-30°C.
- PEG (WPW-070, VPW-070) should be stored at 15-30 °C.

V. Supplement Tables

PowerCHO™ Advance	Insulin	Lipids
Part #	(BE)02-033	BE13-668
10 L	20 mL	5.6 mL
100 L	200 mL	56 mL

Table 1: Quantity of supplements to add to basal powder for PowerCHO Advance™ Medium.

PowerCHO™-1	Insulin	Lipids
Part #	02-033	BE13-668
50 L	100 mL	28 mL

Table 2: Quantity of supplements to add to basal powder for PowerCHO™-1 Medium.

PowerCHO™-2	Insulin	Lipids	Fe citrate	PEG 20000	NaHCO ₃
Part #	(BE)02-033	BE13-668	BE02-059	VPW-070	not supplied in kits
10 L	20 mL	5.6 mL	100 mL	0.44 g	21.55 g
50 L	100 mL	28 mL	500 mL	2.2 g	107.75 g
100 L	200 mL	56 mL	1 L	4.4 g	215.5 g

Table 3: Quantity of supplements to add to basal powder for PowerCHO™-2 Medium

VI. Ordering Information

Cat. No.	Product	Size
15-770F	PowerCHO™-1 Chemically Defined, Serum-free CHO Medium, Powder	50 L
BE15-771ND	PowerCHO™-2 Chemically Defined, Serum-free CHO Medium, Powder	10 L
BE15-771NF	PowerCHO™-2 Chemically Defined, Serum-free CHO Medium, Powder	50 L
BE15-771NJ	PowerCHO™-2 Chemically Defined, Serum-free CHO Medium, Powder	100 L
15-1027D	PowerCHO™ Advance Chemically Defined, Serum-free CHO Medium, Powder	10 L
BE15-1027D	PowerCHO™ Advance Chemically Defined, Serum-free CHO Medium, Powder	10 L
15-1027J	PowerCHO™ Advance Chemically Defined, Serum-free CHO Medium, Powder	100 L
BE15-1027J	PowerCHO™ Advance Chemically Defined, Serum-free CHO Medium, Powder	100 L

Related Products

Cat. No.	Product	Size
15-613I	Sodium Bicarbonate Powder	500 g
17-613E*	Sodium Bicarbonate 7.5% Solution	100 mL
BE17-613E*	Sodium Bicarbonate 7.5% Solution	100 mL
BEBP17-855E	ProHT Supplement (100x)	100 mL
BP12-769E	ProFreeze™ NAO 2x	100 mL
BE12-927Q	PowerCHO™ Advance Medium	1 L
BP12-770Q	PowerCHO™-1 Serum-free Medium	1 L
BP12-771Q	PowerCHO™-2 Serum-free Medium	1 L
BELN12-771Q	PowerCHO™-2 Serum-free Medium	1 L
12-771P10	PowerCHO™-2 Serum-free Medium	10 L
BE12-771P10	PowerCHO™-2 Serum-free Medium	10 L
12-771P20	PowerCHO™-2 Serum-free Medium	20 L
BE12-771P20	PowerCHO™-2 Serum-free Medium	20 L
BE17-605E/U1*	UltraGlutamine I, 200 mM	100 mL
17-605E*	L-Glutamine, 200 mM	100 mL
BE17-605E*	L-Glutamine, 200 mM	100 mL
BEBP-17-605E	L-Glutamine, 200 mM	100 mL

Product Use Statements

GMP PRODUCTS ARE INTENDED FOR RESEARCH OR FOR FURTHER MANUFACTURING USE ONLY. This product is not intended for direct therapeutic use in humans.

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