Complete Medium (DMEM High Glucose, 10% FBS) Datasheet

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For Research Use Only (RUO). Not for diagnostic or therapeutic applications.

1. Product Overview

Complete medium DMEM Medium (10% FBS) High Glucose is a pre-formulated complete medium manufactured by lyophilization technology. It contains high-glucose DMEM basal medium, 10% fetal bovine serum (FBS), antibiotics, L-glutamine and other essential nutrients. No additional basal components are required to support growth and proliferation of adherent mammalian cells.

The product preserves native structure and biological activity of all components with simple reconstitution procedure. Stable pH range is 7.00-7.40, suitable for fast-growing mammalian cells with high metabolic rate. It supports routine culture and subculture of adherent cells including HEK293 and mouse embryonic fibroblasts 3T3, and can be used for cell-culture related work prior to cryopreservation.

2. Product Specifications

Product Name	Complete medium (10% FBS+ DMEM high glucose)
Product Code	HD6190-100; HD6190-500; HD6190A-100; HD6190A-500
Package	100 mL/bottle; 10×100 mL/box; 500 mL/bottle
Manufacturer	BioDomi GmbH
Authorized Representative	Accumedi Solutions Co., Limited

3. Major Components and Function

Component	Function	Typical Concentration
DMEM high-glucose basal medium	Provide inorganic salts, amino acids and vitamins for cell metabolism and biosynthesis	89 %
Fetal bovine serum (FBS)	Supply growth factors, hormones and attachment factors to promote cell proliferation and attachment	10 %
Penicillin-Streptomycin	Inhibit bacterial contamination; Penicillin 100 U/mL, Streptomycin 100 μg/mL	1 %
L-glutamine	Key substrate for cellular	4 mM

	energy metabolism	
Sodium pyruvate	Energy supply, anti-oxidation, pH stabilization and cell-growth promotion	0.11 g/L
Sodium bicarbonate	pH buffering and stabilization for culture medium	3.7 g/L

Note: Minor batch-to-batch variation may exist. Refer to corresponding batch-specific Certificate of Analysis (COA) for detailed component information.

4. Storage & Shelf-Life

Storage Temperature	2-8 ℃ refrigerated. DO NOT FREEZE.
Light protection	Store in dark or amber/foil-wrapped containers to prevent photodegradation.
Unopened shelf-life	24 months from date of manufacture; check Exp. Date on COA for each lot.
Shelf-life after opening	Use within 3-4 weeks; aliquot to reduce repeated warming.
Container	Keep in original sealed bottle or sterile air-tight container.
Transport condition	Ship with ice packs; DO NOT use dry ice. Protect from freezing in winter. Thaw completely before placing at 2-8 ℃ if frozen.
Ambient temperature stability	Maintain quality up to one week at ambient temperature; avoid prolonged room-temperature exposure.

5. Quality Release Specifications

No.	Test Item	Release Limit
1	pH value	7.00-7.40
2	Total protein content	3-4 mg/L
3	Endotoxin content	≤5 EU/mL
4	Coliphage test	Negative
5	Osmotic pressure	320-360 mOsm/kg H_2O
6	Bovine IgG content	＜50 mg/L
7	Sterility test	Negative
8	Mycoplasma test	Negative
9	Support cell proliferation test	Pass
10	Virus detection	Pass

Note: Actual measured results for each lot refer to the corresponding Certificate of Analysis (COA).

Example batch reference: Lot No.20260106; Production Date Jan.6th,2025; Exp.Date Jan.5th,2030

6. Directions for Use

6.1 Pre-use Visual Inspection

Confirm lyophilized powder is not dissolved; bottle is intact and leak-free. After reconstitution, liquid shall be clear without turbidity or sediment. Contact supplier for replacement in case of abnormality.

Note: Trace poorly-soluble substances may exist due to lyophilization physical properties. This phenomenon is not contamination and will not affect culture performance. The medium can be used normally.

6.2 Equilibration

1. Take medium out from 2-8 ℃ refrigerator and equilibrate at room temperature for approx.10 min.
2. Warm medium in 37 ℃ water bath for 15-30 min prior to cell experiments.
3. Only warm required volume for immediate use. Discard any unused warmed medium at end-of-day.

6.3 Dissolution & Mixing (Lyophilized Version)

1. Press bottle cap top to make lyophilized powder fall down completely.
2. Vigorously shake bottle for 1 minute until powder fully dissolved.
3. Unscrew cap, detach and discard inner powder cartridge.
4. Medium is ready-to-use after complete dissolution, pH maintains within 7.00-7.40.

6.4 Aseptic Operation

- Product is 0.2 μm sterile-filtered at manufacture.
- All operations must be performed inside biosafety cabinet under aseptic conditions.
- Inspect seal and bottle for leakage or contamination signs before use.

7. Application

Suitable for in-vitro culture of multiple mammalian adherent cell types. Typical cell lines:
- HEK293 human embryonic kidney cells
- 3T3 mouse embryonic fibroblasts

For routine cell subculture and amplification. For research purpose only, NOT for clinical diagnostic or human therapeutic use.

8. Important Notes & Safety Precautions

1. For Research Use Only (RUO). Not intended for clinical diagnosis or human therapy.
2. Do not freeze. If frozen during winter transport, fully thaw before storing at 2-8 ℃.
3. Wear proper PPE including gloves, lab-coat and eye-protection during handling.
4. Treat all biological materials as potentially hazardous; follow institutional biosafety

protocols.
5. Dispose spent medium and cell-culture waste complying with local biosafety and environmental regulations.
6. Do not use beyond printed expiration date.
7. Aliquot after opening to reduce repeated warming; finish use within 3-4 weeks.

9. Contact Information

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