

Gibco Advanced media:

A flexible approach to cell culture with reduced serum

Gibco™ Advanced media were designed to support a broad range of mammalian cell lines while enabling significant serum reduction, typically between 50% and 90%, without compromising growth or morphology.

Enriched with components that fetal bovine serum (FBS) typically provides, Gibco Advanced media can be used in combination with your FBS, helping reduce dependence on serum while maintaining performance. The Advanced media formulations include key components, such as insulin, transferrin, lipids, antioxidants, and trace elements that support cell health in reduced-serum conditions. Due to the enhanced formulation, these media have also been used as a foundation for serum-free advanced applications, such as organoid culture.

Advanced media are best suited for:

- Routine cell culture and expansion
- Cell line maintenance
- Scaling workflows while reducing serum use
- Advanced cell culture applications, such as organoid models

Key benefits of Advanced media:

- Lower costs through reduced serum use and fewer lot tests
- Equivalent growth and morphology for common cell lines
- Reduced lot-to-lot serum variability
- Common formulations available (e.g., Gibco™ Advanced DMEM, Advanced DMEM/F-12, Advanced MEM, and Advanced RPMI 1640 Medium)

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Various cell lines grown in Advanced media showed morphology and confluency equivalent to standard culture conditions with 50–80% less FBS.

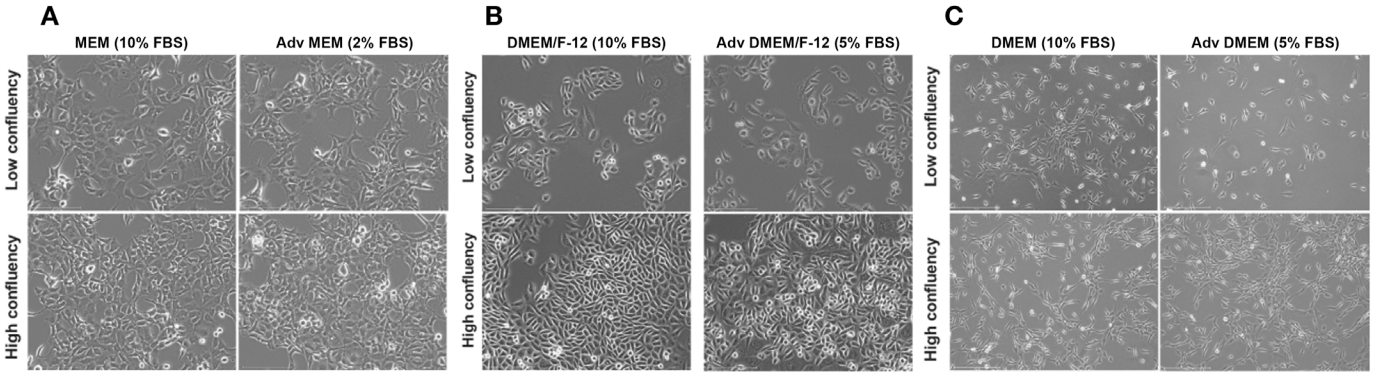


Figure 1. (A) HEK-293, (B) CHO-K1, and (C) NIH3T3 cells grown in Advanced medium with reduced serum were morphologically indistinguishable from standard medium supplemented with 10% serum. Cells were grown in experimental conditions for 10 passages prior to morphological analysis by phase-contrast microscopy.

Various cell lines grown in Advanced media had viability and proliferation rates equivalent to standard culture conditions with 50–80% less FBS.

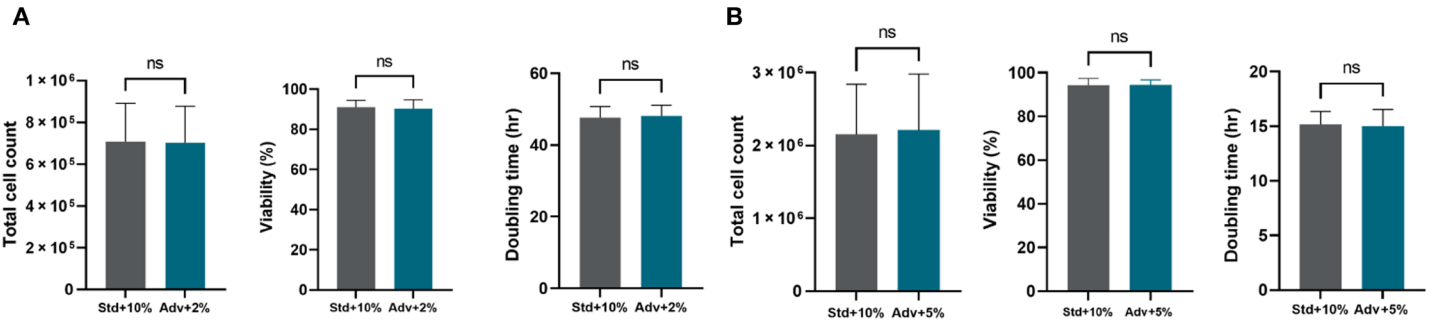


Figure 2. (A) HEK-293 and (B) CHO-K1 cells grown in Advanced medium with reduced serum showed equivalent growth kinetics as compared to standard medium supplemented with 10% serum. Cells were grown in experimental conditions for 10 passages with cell counts and viability measured at every passage. No significant difference across experimental conditions for n=10 passages.

Product description	Volume	Cat. No.
Gibco Advanced DMEM	500 mL	12491015
	10 x 500 mL	12491023
Gibco Advanced DMEM/F-12	500 mL	12634010
	10 x 500 mL	12634028
Gibco Advanced MEM	500 mL	12492013
	10 x 500 mL	12492021
Gibco Advanced RPMI 1640 Medium	500 mL	12633012
	10 x 500 mL	12633020
Gibco GlutaMAX Supplement	100 mL	35050061

Learn more at **thermofisher.com/advanced**

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