CANCER RESEARCH UK

ximbio
Your Global Reagents Partner

Plasmax™: Cell culture media to study cancer biology

Discover a new physiologically relevant cell culture medium which mimics the metabolic and physiological profile of human plasma.

Plasmax™ is a pre-prepared media, painstakingly developed to give the best possible representation of *in vivo* conditions and with the benefits of consistency, reproducibility and quality control that can give you confidence in your results.

- Physiologically relevant to the *in vivo* cell environment.
- Designed to improve the metabolic fidelity and biological relevance of *in vitro* cancer models.
- Improved process control with batch-to-batch consistency for high quality results.

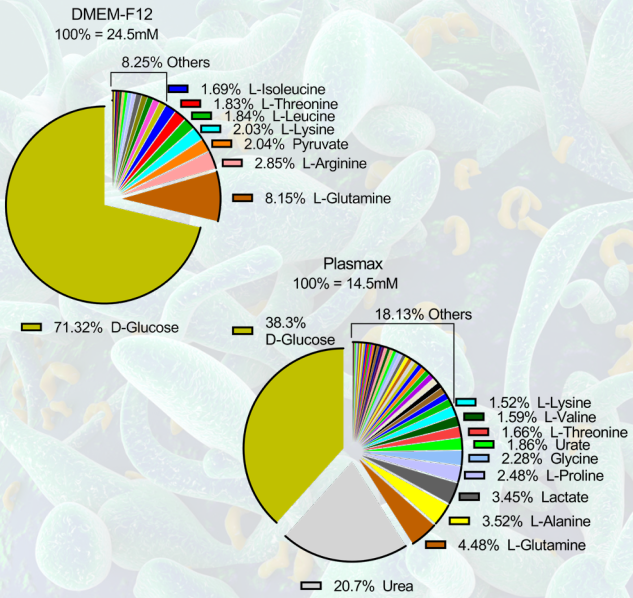
CANCER RESEARCH UK

ximbio
Your Global Reagents Partner

Physiologically relevant to the *in vivo* cell environment

Plasmax™ contains nutrients utilised by cells *in vivo* at concentrations present in human plasma.

- Allows cell-type-specific metabolism and proportional uptake of nutrients in comparison to traditional media.
- Plasmax™ reverses the direction of a urea cycle reaction catalysed by arginosuccinate lyase.
- Incubation of cancer cells in Plasmax™ prevents pseudo-hypoxia, a phenomenon generally seen in cells cultured with traditional media.

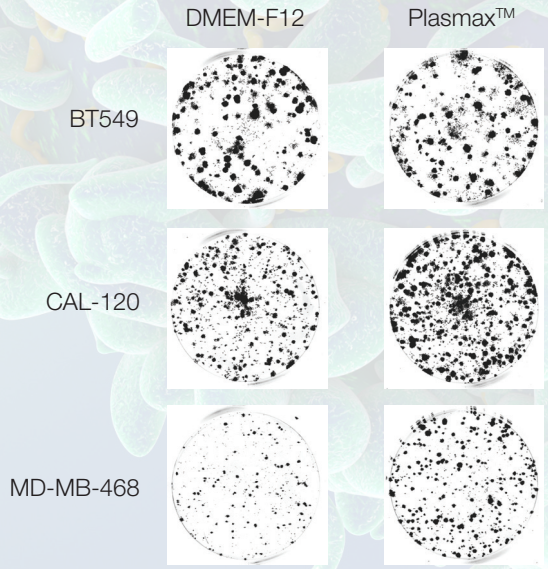


Comparison of the formulation of Plasmax™ and DMEM.
Van Voorde et al., 2019 Sci Adv. Jan 5(1).

Designed to improve the metabolic fidelity and biological relevance of *in vitro* cancer models

Metabolic profiles of cells grown in Plasmax™ are distinct from those grown in DMEM-F12.

- Plasmax™-cultured cells have a metabolic profile comparatively far closer to that of orthotopic xenografts.
- Such effects are apparent after only four days of incubation.
- Plasmax™ can rectify non-physiological metabolic profiles induced by conventional media.



Quantification of a colony formation assay performed with BT549, CAL-120, and MDA-MB-468 cells preincubated (2 days with Plasmax™), seeded at 500 cells per well, and incubated (12 days) with DMEM-F12 or Plasmax™ as indicated. Adapted from Van Voorde et al., 2019 Sci Adv. Jan 5(1).

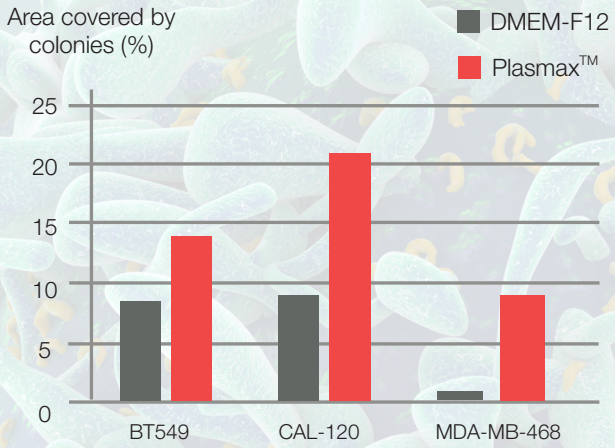
CANCER RESEARCH UK

ximbio
Your Global Reagents Partner

Enhanced colony formation

Cells grown in Plasmax™ have enhanced colony forming capacity and better approximate the metabolic profile of tumours.

- Selenium in the form of sodium selenite increases the antioxidant capacity of cells.
- Overall colony number and growth of low-density plated Triple Negative Breast Cancer (TNBC) cell lines is increased when incubated in Plasmax™.

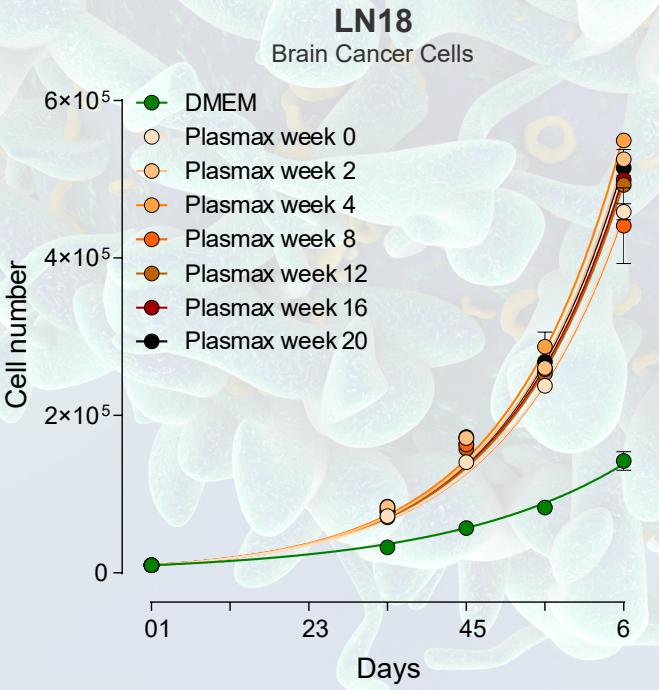


Colony forming assay quantification performed on three triple negative breast cancer cell lines pre-incubated (2 days), seeded at 500 cells per well (n=3) and incubated (12 days) with DMEM-F12 or Plasmax. Adapted from Van Voorde et al., 2019 Sci Adv. Jan 5(1).

Batch-to-batch consistency at scale

Get consistency across results by using a standardised cell culture media to study cancer biology.

- Eliminate the need to tailor traditional cell media to *in vitro* cancer models by adding additional components.
- Plasmax™ maintains effectiveness throughout its shelf life, with no effect on cell growth from aged Plasmax™.
- Cancer cell lines cultured in Plasmax™ in comparison to traditional media, aged up to 20 weeks, demonstrate higher cell density. Refer to the corresponding figure.



LN18 cells were cultured in 2ml/well of DMEM or Plasmax™ Plasmax™ media was either prepared on day0 from frozen stock components (Plasmax week 0) or left at 4°C for up to 20 weeks (plasmax week 2-20). Tardito Group, 2020 (unpublished data)

CANCER RESEARCH UK

ximbio
Your Global Reagents Partner

About Ximbio

Part of Cancer Research UK's Commercial Partnerships team, Ximbio's mission is to make life science research tools, (incl. animal models, antibodies, small molecules, cell lines, etc.), widely and easily available to scientists worldwide, to accelerate life science research.

www.ximbio.com

enquiries@ximbio.com