

# MarrowMAX™ Bone Marrow Medium

P R O D U C T N E W S

- *Optimized for cytogenetic analysis*
- *High mitotic index*
- *Excellent chromosomal morphology*
- *Consistent performance*



**Figure 1. Chromosome spread from normal bone marrow cells.** Cells were cultured in MarrowMAX™ Medium for 24 h.

Analysis of human tumors and hematopoietic cells for diagnosis of malignancies is a rapidly growing area of clinical cytogenetics. For the short-term culture of bone marrow, peripheral blood, and hematopoietic cells required for these analyses, many labs use Giant Cell Tumor (GCT) conditioned media containing a variety of hematopoietic growth factors to supplement serum-containing cultures. However, it is difficult to achieve consistent high levels of analyzable cells with commercially available or homemade formulations supplemented with GCT.

GIBCO™ MarrowMAX™ Bone Marrow Medium is a fully supplemented medium developed specifically to support bone marrow and peripheral blood cell culture for *in vitro* cytogenetic analysis of hematological disease.

MarrowMAX™ Bone Marrow Medium contains a novel human stromal cell conditioned medium. This conditioned medium is composed of a unique blend of hematopoietic growth factors for optimal cell growth. The medium is manufactured under strict controls ensuring consistent performance and superior chromosomal

morphology (*figure 1*). Using MarrowMAX™ Medium results in cultures with a high mitotic index and an increased number of analyzable cells.

#### **Superior Performance**

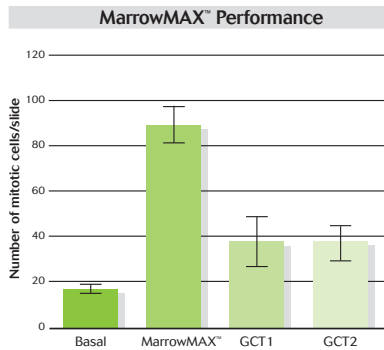
- Outperforms commercially available media containing GCT (*figure 2, reverse*).
- Higher mitotic index and superior chromosomal morphology.
- Consistent lot-to-lot performance (*figure 3, reverse*).

#### **Convenience**

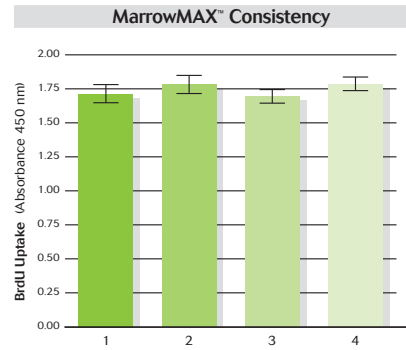
- Complete, ready-to-use medium.
- Fully supplemented with serum, antibiotics, and L-glutamine.
- Store either frozen or refrigerated.

#### **Quality Assurance**

- Manufactured in compliance with the FDA's Quality System Regulation (cGMP) and the current requirements of ISO 9001.
- Application tested by an independent certified cytogenetics laboratory using human bone marrow cells.
- Extended shelf life of 18 months when stored unopened at -20°C and 60 days stored at 4°C.



**Figure 2. Comparison of media for stimulation of mitotic cells.** Cells were cultured in basal medium without conditioned medium (Basal), MarrowMAX<sup>™</sup> Medium which contains stromal cell-conditioned medium (MarrowMAX<sup>™</sup>), Supplier 1 Medium containing GCT-conditioned medium (GCT 1), and Supplier 2 Medium containing GCT-conditioned medium (GCT 2). Mitotic cells were assayed 24 h after plating. Results are mean ± SEM for N = 10 with up to 30 donors.



**Figure 3. MarrowMAX<sup>™</sup> Medium consistency.** Normal bone marrow mononuclear cells were seeded at  $1 \times 10^5$  cells/ml in 4 different lots of MarrowMAX<sup>™</sup> Medium. Results are mean ± SEM for N = 10.

## Ordering Information

Description	Cat. No.	Size
MarrowMAX <sup>™</sup> Bone Marrow Medium** (contains gentamicin)	12260-014	100 ml
<b>Related Products</b>		
<b>Complete Media</b>		
AmnioMAX <sup>™</sup> -II Complete Medium (contains gentamicin)	11269-016	100 ml
AmnioMAX <sup>™</sup> -C100 Complete Medium (system) — The system contains both the medium (90 ml) and the supplement (15 ml) (supplement contains gentamicin)	12558-011	1 Set
AmnioMAX <sup>™</sup> -C100 Basal Medium, liquid	17001-082 17001-074	90 ml 450 ml
AmnioMAX <sup>™</sup> -C100 Supplement, liquid (supplement contains gentamicin)	12556-015 12556-023	15 ml 75 ml
PB-MAX <sup>™</sup> Karyotyping Medium (supplement contains gentamicin)	12557-013 12557-021	100 ml 500 ml
<b>Reagents</b>		
KaryoMAX <sup>®</sup> Colcemid <sup>®</sup> Solution, liquid (10 µg/ml), in HBSS	15210-040	10 ml
KaryoMAX <sup>®</sup> Colcemid <sup>®</sup> Solution, liquid (10 µg/ml), in PBS	15212-012	10 ml
KaryoMAX <sup>®</sup> Giemsa Stain Stock Solution	10092-013	100 ml
Gurr Buffer Tablets (pH 6.8)*	10582-013	50 × 1 L
Phytohemagglutinin (M Form) (PHA), lyophilized*	10576-015	10 ml

See Chapter 3 of the 2003 GIBCO<sup>™</sup> Catalog for more related products.



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