



BI
Biological Industries
Culture of Excellence



HUMAN CYTOGENETICS

PRODUCT CATALOG 2017

Biological Industries USA

With over 35 years of expertise in cell culture media development and manufacturing, Biological Industries' (BI) products—including BIO-AMF™, BIO-HEMATO™ and BIO-PB™ brands—are used in cytogenetic laboratories all around the world. With the 2015 launch of Biological Industries USA (BI-USA), you now have additional choices in selecting high quality tools that can help you make critical decisions in the lab. When your cytogenetics analysis is supported by the BI-USA team and BI media and supplements, you can be confident in the conclusions you reach.

Today, our product and services portfolio benefits both life science and medical customers. Whether it is in developing culture media for stem cell therapy, media to assist IVF procedures, or supplying classical cell culture media for molecular biology, we are committed to providing our customers with a Culture of Excellence. We do this through our advanced GMP manufacturing and quality control systems, superior regulatory expertise, in-depth market knowledge, and extensive technical customer support, training, and R&D capabilities.



BOOST PERFORMANCE INCREASE CONSISTENCY

Performance

- Consistent lot-to-lot performance
- Optimized products for the analysis of amniotic fluid, chorionic villus, peripheral blood, bone marrow, and hematopoietic cells
- Delivers accelerated cell growth with high mitotic index and excellent chromosomal morphology
- Clean and reproducible results saving lab time with quick analysis and easy interpretation

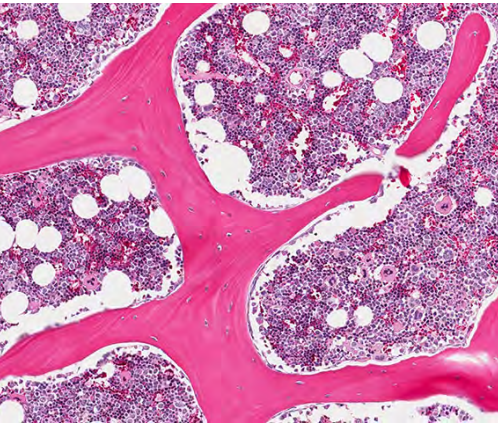
Quality Control

- Manufactured in compliance with the FDA's quality system regulation (cGMP) and the current requirements of ISO 9001 and ISO 13485
- Extensive QA testing for sterility, endotoxin, and adventitious agent
- Extended shelf life of 24-36 months when stored unopened at -20°C

Support

- Regional technical support
- Documentation and traceability documentation including Certificate of Analysis, and Certificates of Origin
- Backed by more than 35 years of media development and manufacturing experience

AMNIOTIC FLUID AND CHORIONIC VILLUS CULTURE



Optimized media for prenatal diagnostics

The BIO-AMF™ family of cytogenetic media are designed for primary culture of human amniotic fluid (AMF) cells and chorionic villi (CV) samples intended for karyotypic analysis. High mitotic index enables the accelerated growth of cells for rapid detection and enhanced analysis of chromosomal abnormalities. With BIO-AMF media, chromosome karyotyping time is greatly reduced, with significantly high cell yield by Day 7 as compared to conventional media (Figure 1). The BIO-AMF media are easy to use and application-validated for cytogenetic analysis, giving reproducible results that are easy to analyze and interpret.

The enhanced buffering capacity of BIO-AMF media is ideal for AMF and CV cells cultured in both open (5% CO₂) and closed systems. BIO-AMF-2 and BIO-AMF-3 are ready-to-use complete media, requiring no serum or additional supplements.

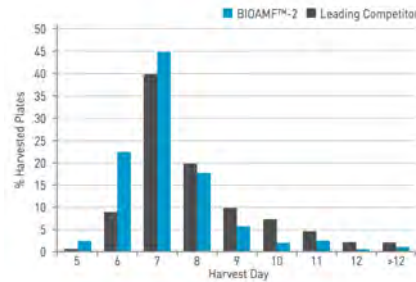


Figure 1: Comparison of the percentage of harvested plates according to harvest day between BIO-AMF™-2 and a leading competitor. Data provided by Dr. Ayala Frumkin, Hadassah Medical Center, Israel.

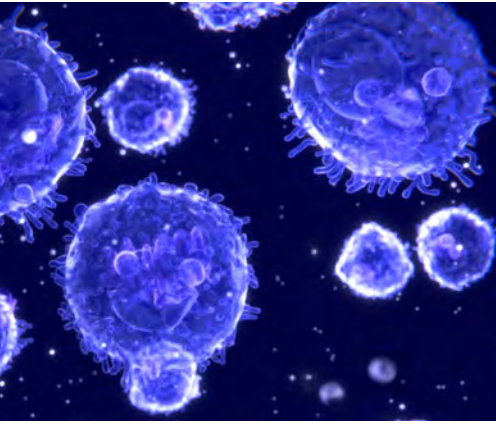
	BIO-AMF™-1	BIO-AMF™-2	BIO-AMF™-3
Open & Closed Systems	✓	✓	✓
Cell Types	AMF and CVs	AMF and CVs	AMF and CVs
Advantages	- Rapid growth of AMF and CV cells for karyotyping	- One bottle formulation - Ease-of-use	- Less epithelial cells - Improved banding quality
Complete Medium	No (L-glutamine & antibiotics supplied separately)	Yes	Yes
Stability (when thawed)	14 days	7 days	14 days
Storage (when frozen)	- 15 months - 24 months	24 months	36 months

ORDER INFORMATION

Description	Cat. #	Size
BIO-AMF™-1 Medium*	01-190-1A-KT	500 mL
	01-190-1B-KT	100 mL
BIO-AMF™-2 Medium	01-194-1A	500 mL
	01-194-1B	100 mL
BIO-AMF™-3 Medium	01-196-1A	500 mL
	01-196-1B	100 mL

* Includes basal medium and supplement mix.

BONE MARROW CULTURE



Optimized media for postnatal diagnostics

Our BIO-MARROW™ Karyotyping Medium was developed to stimulate the growth of both primary bone marrow cells and hematopoietic cells sourced from either bone marrow aspirates or peripheral blood. BIO-MARROW™ Medium was designed for samples with low cell counts and a low mitotic index.

BIO-HEMATO™ Karyotyping Medium is a ready-to-use and complete solution, has been found to be particularly effective in karyotyping leukemia's, myelodysplastic syndrome and polycythemia vera.

ORDER INFORMATION

Description	Cat. #	Size
BIO-MARROW™ Karyotyping Medium without conditioned medium	01-199-1A	500 mL
	01-199-1B	100 mL
BIO-HEMATO™ Karyotyping Medium with conditioned medium	01-200-1A	500 mL
	01-200-1B	100 mL

BLOOD LYMPHOCYTE CULTURE

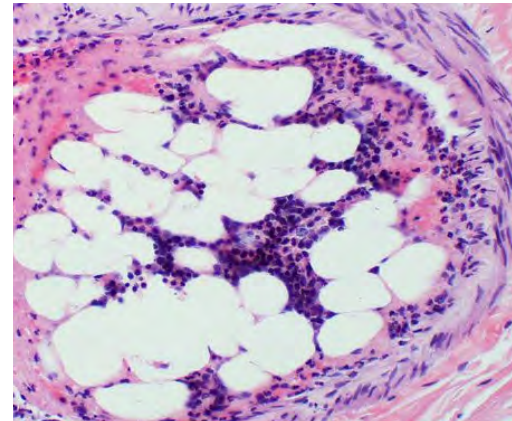
Optimized media for peripheral blood

Blood cell karyotyping is an important tool in modern human cytogenetics, providing information about chromosomal abnormalities, their frequency in the population, and the relationship between specific chromosomal abnormalities and phenotypic effects.

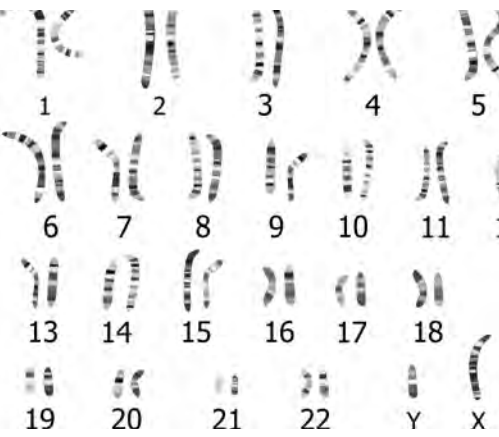
BIO-PB™ Karyotyping Medium is specifically optimized for short-term culture of peripheral blood lymphocytes for chromosome analysis. No addition of serum, glutamine, or antibiotics is required.

ORDER INFORMATION

Description	Cat. #	Size
BIO-PB™ Karyotyping Medium, with PHA	01-201-1A	500 mL
	01-201-1B	100 mL
BIO-PB™ Karyotyping Medium, without PHA	01-198-1A	500 mL
	01-198-1B	100 mL
BIO-HEMATO™ Karyotyping Medium	01-200-1A	500 mL
	01-200-1B	100 mL



KARYOTYPING REAGENTS



Quality reagents for cytogenetic labs

BI offers a complete range of products and reagents for your cytogenetic karyotyping needs from the start to finish, including colcemid, colchicine, PHA, and a cell synchronization kit for high-resolution chromosomal studies.

ORDER INFORMATION

Description	Cat. #	Size
Amphotericin B (10X) Solution	03-029-1B	100 mL
	03-029-1C	20 mL
Amphotericin B Solution	03-028-1B	100 mL
	03-028-1C	20 mL
Cell Synchronization Kit	12-008-60	60 Reactions
Colcemid (Demecolcine) Solution	12-004-1D	10 mL
Colchicine Solution	12-003-1C	25 mL
Phytohemagglutinin-M (PHA-M), Liquid	12-009-1H	5 mL
Potassium Chloride, 0.075 Molar	12-005-1B	100 mL
Sodium Citrate Solution	01-934-1A	500 mL
Trypsin (0.5%), EDTA (0.2%) (10X)	03-051-5B	100 mL

RELATED PRODUCTS

Description	Cat. #	Size
Pharmacidal™ Spray	IC-110100-L	250 mL
	IC-110100	1 L
	IC-110100-G	5 L
Aquaguard™-1 Solution for disinfecting water baths of CO ₂ incubators	01-867-1B	100 mL
Aquaguard™-2 Solution for disinfecting water baths	01-916-1E	50 mL
BIOMYC-1 Antibiotic Solution	03-036-1B	100 mL
BIOMYC-2 Antibiotic Solution	03-037-1B	100 mL
BIOMYC-3 Antibiotic Solution	03-038-1B	100 mL
RPMI 1640	01-100-1A	500 mL
RPMI 1640 without L-Glutamine	01-101-1A	500 mL
DPBS, without Calcium and Magnesium	02-023-1A	500 mL
Gentamycin Sulfate Solution	03-035-1B	100 mL
Kanamycin Sulfate Solution	03-049-1B	100 mL
L-glutamine	03-020-1B	100 mL
MEM-alpha, no nucleosides, high glucose	01-043-1A	500 mL
Hepes Buffer Solution	03-025-1B	100 mL
Penicillin-Streptomycin-Nystatin Solution	03-032-1B	100 mL
Penicillin-Streptomycin Amphotericin B Solution	03-033-1B	100 mL
Water, Cell Culture Grade	03-055-1A	500 mL



For a complete listing of all our products and packaging options, visit www.bioind.com

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