

Cytogenetics and Diagnostic Products Chang Medium®

CHANG AMNIO™ is a complete, ready-to-use medium with an antibiotic developed for the culture of human amniotic fluid cells, chorionic villi sampling, and tissues for use in karyotyping and other antenatal testing.

CHANG MEDIUM® C, *In Situ*, and D are evaluated on both primary amniocytes and early passage amniocytes. Early passage amniocytes supply the most consistent and reproducible results while primary amniocytes more accurately reflect the products' use in the clinical cytogenetics laboratory.

CHANG MARROW™ is a complete, ready-to-use medium optimized to support bone marrow cultures for karyotyping and other genetic testing of various hematological disorders. The product is tested on clinical bone marrow specimens and evaluated for suitable chromosome morphology to detect acquired clonal abnormalities in hematologic dysplasia.

CHANG MEDIUM® BMC is evaluated for its ability to support mitotic activity of bone marrow cells. The product is tested on clinical bone marrow specimens and evaluated for suitable chromosome morphology to detect acquired clonal abnormalities in hematologic dysplasia.

CHANG MEDIUM® MF is mitogen-free, designed for hemopoietic cells. Because CHANG MEDIUM® MF can be used for both unstimulated peripheral blood and bone marrow cultures, it is tested on both peripheral blood and bone marrow specimens.

Catalog Number	Description	Primary Amniocytes	Early Passage Amniocytes	Bone Marrow	Peripheral Blood
99473	CHANG AMNIO™	•	•		
C100-C106	CHANG MEDIUM C	•	•		
C101-C108					
T101-019					
T101-059					
T104	CHANG MEDIUM In Situ	•	•		
T105	CHANG MEDIUM D	•	•		
91031	CHANG MARROW™			•	
91004	CHANG MEDIUM® BMC			•	
91005	CHANG MEDIUM MF			•	•





Chang Medium®

PRENATAL

CHANG AMNIO™

CHANG AMNIO $^{\text{m}}$ is a complete, ready-to-use medium with an antibiotic developed for the culture of human amniotic fluid cells, chorionic villi sampling for use in karyotyping and other antenatal testing. With an improved blend of basal media and sera, Irvine Scientific's Chang Amino $^{\text{m}}$ is shown to yield significantly higher growth than other commercially available media.

CHANG MEDIUM® C

CHANG MEDIUM C was developed for the primary culture of human amniotic fluid cells for use in karyotyping and other antenatal genetic testing. This formula has been optimized for both open and closed systems.

Catalog Number	Description	Size	
99473	CHANG AMNIO™ Storage: -10° C For <i>in vitro</i> diagnostic use	100 mL 500 mL	
C100	CHANG MEDIUM BASAL Storage: Basal 2° to 8° C For <i>in vitro</i> diagnostic use	90 mL	
C101	CHANG MEDIUM BASAL Storage: Basal 2° to 8° C For <i>in vitro</i> diagnostic use	450 mL	
C106 ₩	CHANG MEDIUM C, FROZEN SUPPLEMENT Storage: Below -10° C For <i>in vitro</i> diagnostic use	14 mL	
C108	CHANG MEDIUM C, FROZEN SUPPLEMENT Storage: Below -10° C For <i>in vitro</i> diagnostic use	70 mL	
99419	CHANG MEDIUM C, LYOPHILIZED KIT w/Gentamicin and Alanyl-Glutamine	100 mL 500 mL	
T101-019	CHANG MEDIUM C, LYOPHILIZED KIT Storage: 2° to 8° C For <i>in vitro</i> diagnostic use	100 mL	
T101-059	CHANG MEDIUM C, LYOPHILIZED KIT Storage: 2° to 8° C For <i>in vitro</i> diagnostic use	500 mL	



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Chang Medium®

PRENATAL

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CHANG MEDIUM® In Situ

CHANG MEDIUM *In Situ* was developed for the primary culture of human amniotic fluid cells for use in karyotyping and other antenatal genetic testing. This formula has been optimized for *in situ* methodologies.

Catalog Number	Description	Size	
T104 �	CHANG MEDIUM <i>In Situ</i> packaged in single bottles ready-to-use with no mixing required Storage: Below -10°C For <i>in vitro</i> diagnostic use	100 mL 500 mL	

CHANG MEDIUM® D

CHANG MEDIUM D was developed for the primary culture of human amniotic fluid cells for use in karyotyping and other antenatal genetic testing. This formula has been optimized for both flask and *in situ* methodologies.

Catalog Number	Description	Size
T105 �	CHANG MEDIUM D packaged in single bottles ready-to-use with no mixing required Storage: Below -10°C For <i>in vitro</i> diagnostic use	100 mL 500 mL
99404 �	CHANG MEDIUM D WITH GENTAMICIN packaged in single bottles ready-to-use with no mixing required Storage: Below -10°C For <i>in vitro</i> diagnostic use	100 mL 500 mL

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Chang Medium®

POSTNATAL

BONE MARROW CULTURE MEDIA

CHANG MARROW™

CHANG MARROW^{∞} is a complete, ready-to-use medium optimized to support bone marrow cultures for karyotyping and other genetic testing of various hematological disorders. After an extensive optimization process to create a superior, innovative blend of growth factors, Irvine Scientific's brand new medium Chang Marrow^{∞} has been shown to out-perform MarrowMAX^{∞} in clinical studies. Each lot has been performance tested on Clinical Bone Marrow Cultures at an independent Clinical Cytogenetics Laboratory. The product is tested on clinical bone marrow specimens and evaluated for suitable chromosome morphology to detect acquired clonal abnormalities in hematologic dysplasia.

Catalog Number	Description	Size	
91031 **	CHANG MARROW™ packaged in single bottles	100 mL 500 mL	
	ready-to-use with no mixing required Storage: Below -10° C		
	For <i>in vitro</i> diagnostic use		

CHANG MEDIUM® BMC

Developed for the primary culture of Clinical Human Bone Marrow Cultures for use in karyotyping and other genetic testing using existing protocols based on RPMI Medium 1640, 10% GCT-CM and gentamicin. Each lot has been performance tested on Clinical Bone Marrow Cultures at an independent Clinical Cytogenetics Laboratory.

Catalog Number	Description	Size	
91004	CHANG MEDIUM' BMC	100 mL	
*	packaged in single bottles ready-to-use with no mixing required Storage: Below -10° C For <i>in vitro</i> diagnostic use	500 mL	

BONE MARROW, PERIPHERAL BLOOD, AND OTHER T-CELL LYMPHOCYTE CULTURE MEDIA

CHANG MEDIUM® MF, MITOGEN-FREE FOR HEMOPOIETIC CELL CULTURE

Developed for the primary culture of Clinical Human Bone Marrow Cultures, Peripheral Bloods and other T-Cell Lymphocyte cultures for use in karyotyping and other genetic testing using existing protocols based on RPMI Medium 1640, 20% FBS and gentamicin. Each lot has been performance tested on Clinical Bone Marrow Cultures and Peripheral Blood Cultures at an independent Clinical Cytogenetics Laboratory.

Catalog Number	Description	Size
91005	CHANG MEDIUM' MF	100 mL
*	packaged in single bottles ready-to-use with no mixing required Storage: Below -10° C For <i>in vitro</i> diagnostic use	500 mL Available by Standing Order C

^{*} shipped with dry ice



Cell Culture Media

McCOY'S MEDIUM 5A (Iwakata and Grace Modification)

A general medium for primary and established cell lines using increased glucose, additional vitamins, high phosphate and peptone.

Catalog Number	Description	Size	
9090	McCOY'S MEDIUM 5A with 3000 mg/L glucose with 2200 mg/L sodium bicarbonate without L-glutamine, add 7.51 mL/L (200 mM) Storage: 2° to 8°C	500 mL	

HAM'S NUTRIENT MIXTURE

Originally developed for cloning Chinese Hamster Ovary and lung cells. Useful, with serum supplements, for a variety of serum-free applications including the growth of myeloma and hybridoma cells.

Catalog Number	Description	Size
9056	HAM's F-10 with 1200 mg/L sodium bicarbonate without L-glutamine, add 5 mL/L (200 mM) Storage: 2° to 8°C	500 mL
9058	HAM'S F-12 with 1176 mg/L sodium bicarbonate without L-glutamine, add 5 mL/L (200 mM) without linoleic acid Storage: 2° to 8°C	500 mL
9052	HAM'S F-12/DME HIGH GLUCOSE 1:1 MIXTURE with 3151 mg/L glucose 1200 mg/L sodium bicarbonate without L-glutamine, add 12.5 mL/L (200 mM) without linoleic acid Storage: 2° to 8°C	500 mL 1000 mL
9077	HAM's F-12K (KAIGHN'S NUTRIENT MIXTURE F-12) with 2500 mg/L sodium bicarbonate without ascorbic acid without linoleic acid without L-glutamine, add 10 mL/L (200 mM) Storage: 2° to 8°C	500mL 1000mL
9195	CLICK'S MEDIUM (EHAA) with 1350 mg/L sodium bicarbonate without mercaptoethanol without L-glutamine, add 20 mL/L (200 mM) Storage: 2° to 8°C	500mL



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Cell Culture Media

RPMI MEDIUM 1640

Designed for growth of human leukemia cells in either monolayers or suspension and useful for a wide variety of suspension and monolayer cultures and for hybridomas.

Catalog Number	Description	Size
9160	RPMI MEDIUM 1640	100 mL
	2000 mg/L sodium bicarbonate	500 mL
	without L-glutamine, add 10.3 mL/L (200 mM) Storage: 2° to 8°C	1000 mL
9161	RPMI MEDIUM 1640 WITH L-GLUTAMINE	100 mL
	2000 mg/L sodium bicarbonate Storage: 2° to 8°C	500 mL
9159	RPMI MEDIUM 1640 1X HEPES*	100 mL
	25 mM HEPES buffer	500 mL
	without L-glutamine, add 10.3 mL/L (200 mM)	
	*Osmolality modified: 4587.28 mg/L HEPES, acid form	
	1496.73 mg/L HEPES, 1 Na Salt Storage: 2° to 8°C	
9157	RPMI MEDIUM 1640 1X HEPES* WITH L-GLUTAMINE	500 mL
	25 mM HEPES buffer	
	*Osmolality modified: 4468 mg/L HEPES, acid form	
	1627 mg/L HEPES, 1 Na Salt	
	Storage: 2° to 8°C	
9154	MODIFIED RPMI 1640	100 mL
	with 2000 mg/L sodium bicarbonate	
	without folic acid	
	without L-glutamine, add 10.3 mL/L (200 mM)	
	Storage: 2° to 8°C	

Reagents and Media Components

Catalog Number	Description	Size
9317 **	L-GLUTAMINE SOLUTION 29.2 mg/mL (200 mM) / saline solution Storage: below -10°C	100 mL
9319	HEPES BUFFER SOLUTION 1M 238.3 g/L in water Storage: 2° to 8°C	100 mL
9309	WATER FOR INJECTION (WFI) GRADE WATER* suitable for cell culture, <i>in vitro</i> diagnostic and further manufacturing use meets USP criteria for packaged WFI Storage: 15° to 30°C	1 L 20 LC
9311	COLCEMID' SOLUTION with SEPTUM CAPS pipette and syringe accessible 10 µg/ml prepared in Hanks' Balanced Salts Storage: 2° to 8°C	12 x 10 mL 10 mL
96691	PHYTOHEMAGGLUTININ - PHA (REAGENT GRADE) lyophilized powder, reconstitute with 5 mL sterile water approximately 45 mg/vial Storage: 2° to 8°C For <i>in vitro</i> diagnostic use	5 mL
91006 ☆	IS GIANT CELL TUMOR-CONDITIONED MEDIUM** Easily grows hematopoietic cells. May be used to improve bone marrow cytogenetic analysis, isolate and recover HIV and produce and grow human hybridomas. A unique conditioned medium derived from a hum tumor cell line, GCT-CM provides a winning combination of GM-CSF, G-CSF, M-CSF, IL-1 and IL-6, to ensure dependable performance in a wide range of applications. Storage: Below -10°C For Research Use	50 mL

LIQUID ANTIBIOTICS

Catalog Number	Description	Size	
9355	GENTAMICIN SULFATE SOLUTION 50 mg/mL gentamicin (base) in water recommend: 1 mL/L medium Storage: 15° to 30°C	20 mL	

^{*}WFI GRADE WATER may not be sold for use in reproductive procedures or A.R.T. purposes. Not for parenteral use.

Colcemid* is a trademark of Ciba-Geigy Corporation

^{**}Check for availability



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