Euro-Clone®
serving science through innovation

CYTOGENETICS

Leading the way to modern Cytogenetics

Reagents, Equipment, Know-how

The aim of Cytogenetics is the study of cellular constituents concerned with heredity, primarily the structure, fuction, and origin of the chromosomes.
The chromosome content, called karyotype, is classified on the basis of both chromosome number and morphology, which are fixed characteristics for a particular species. Theoretically, it is possible to prepare chromosome samples starting from any tissue (or suspension of mitotic cells) providing that appropriate methods are used for the type of cell to be examined.
The identification and characterisation of either constitutional or acquired chromosome abnormalities, are the focus of two large areas of diagnostic investigation.

From the clinical point of view, cytogenetic analysis is a fundamental tool for prenatal and postnatal diagnosis of several pathologies (concerning general and specialist medicine), and it is the basis of prevention programmes regarding congenital and hereditary diseases.

Starting from a long experience in the field of cytogenetic analysis, EuroClone® has developed a perfect combination of media, plastic supports, synchronizing agents, and equipments for pre and postnatal analysis.

Brief History

Human chromosome research has been pursued for over a century and many innovations have been introduced, giving rise to the methods of chromosome-banding and molecular analysis widely used today in routine diagnostic procedures in clinical cytogenetics.
Modern cytogenetics is generally said to have begun in 1956 with the discovery by Tjio and Levan[1] that normal human cells contain 46 chromosomes. This discovery was aided by a new technique of slide preparation utilizing a hypotonic solution previously adapted by Hsu in 1952.
Starting from 1960 several banding techniques were introduced in cytogenetics laboratories; the most used are Quinacrine banding (QFQ), Giemsa banding (GTG) and reverse banding (R). In 1976, Yunis introduced high-resolution banding techniques that involve the staining of chromosomes during prophase or early metaphase (prometaphase), before they reach maximal condensation. Through this technique the number of visible bands for all chromosomes increases and allows the detection of less obvious abnormalities usually not seen with conventional banding[2-3].
In the course of the 80's, advances were made in molecular cytogenetics, including several technologies like fluorescence in situ hybridization (FISH), comparative genomic hybridization (CGH), and multicolor FISH. Moreover, molecular cytogenetics application involves nanobiotechnology, microarrays, real-time polymerase chain reaction (RT-PCR), in vivo imaging, and single molecule detection.

Postnatal analysis

Postnatal cytogenetic analysis refers to the karyotyping of samples derived from a variety of tissues: peripheral blood, bone marrow and skin fibroblast.
With a blood sample as small as 0.2 - 0.5 ml, it is possible to set up a suspension culture from which it is easy to obtain enough mitoses to study the karyotype of a subject. After 48 to 96 hours of culture, metaphase chromosomes are harvested and slides prepared for chromosome analysis [4,5].
Chromosome analysis may be performed for several indications, including: multiple congenital anomalies in a patient; couples with a history of spontaneous miscarriages; individuals with ambiguous genitalia, infertility, or amenorrhea; patients with a family history of chromosomal abnormalities; patients with a suspected chromosomal syndrome, and families with male predominant mental retardation.
Moreover chromosome analysis for haematological disorders of leukemic blood cells are performed to identify specific chromosome rearrangements. These rearrangements in neoplastic cells are often correlated to specific types of leukemia or myelodysplasias.
This information helps the clinician in making a diagnosis, predicting a prognosis, and eventually prescribing a therapy.

Chromosome kit & Medium, P / M

Chromosome Kit and Medium P and M are specifically designed to optimize peripheral blood lymphocytes (P) and bone marrow cell culture (M), for the chromosomal analysis. The medium is complete, and supplied in ready to use culture tube or in bottles. The use of Chromosome Kit (P/M) in ready to use culture tubes allows remarkable time saving and reduction of manual procedures bringing benefits to the routine laboratory. The ratio between sample/liquid volume and culture surface area was thoroughly studied, and the medium composition accurately formulated to ensure optimal mitotic index. Chromosome Kits P & M simplify operative protocols and produce highly reproducible and readable specimens for microscopic examination: the number of metaphases and chromosome quality are superior compared to conventional media or other commercially available kit.

Features

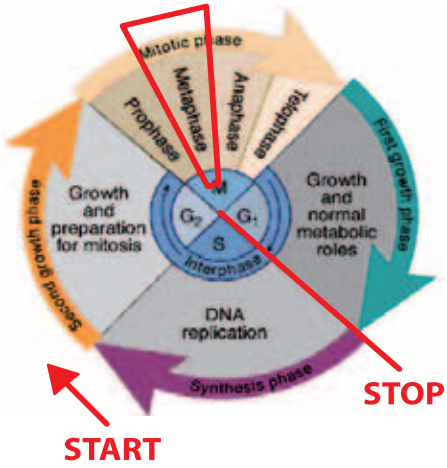
- Mitotic index: metaphases number doubled.
- Easy to use: the tube format guarantees easy handling, and low risk of contamination.
- Shelf life: Chromosome P 12 months at +2°C/+8C°. Chromosome M 12 months at -20°C .
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.

SynchroSet

Synchroset consists of two solutions, which added to the culture medium, and following an extremely simple protocol, allow the synchronization of the cell cycle in both lymphocytes and bone marrow cells. Synchroset is a reagent that can be used routinely in the lab, and is also suitable for the production of high numbers of prometaphases in which the chromosomes are appropriate for high resolution banding techniques (up to 850-1000 bands per haploid set). This methodology is suitable for more precise identification of breakpoints and minor abnormalities which often cause severe plurimalformative conditions.

Features

- Easy handling, user friendly protocol.
- Tube format ready to use (4 tubes x 1,5 ml each Sol A; 4 tubes x 1,5 ml each Sol B).
- High resolution banding.
- Shelf life: 12 months at +2°C/+8C°.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.



ChromosomeSynchro kit and medium P /M

ChromosomeSynchro P and M are specifically created to optimize the culture of peripheral blood lymphocytes (Medium P) and bone marrow cells (Medium M), and to obtain an extremely efficient cell cycle synchronization for the subsequent chromosomal analysis.
The kit is composed by medium P or M, and synchronization kit. The medium is complete, and supplied in ready to use culture tube or in bottles. ChromosomeSynchro guarantees the best quality results for postnatal Cytogenetics in terms of optimal mitotic index through the accurate media formulation, and the highest number of metaphases of exceptional quality thanks to the synchronisation kit (more than 550 bands per haploid set).

Features

- Easy handling, user friendly protocol.
- Different format available to meet every labs's needs.
- High resolution banding.
- Shelf life: 12 months from production date.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.

Chromosome FBS

Chromosome FBS is a special serum tested for Cytogenetics applications. The use of Chromosome FBS is suggested for postnatal analysis on peripheral blood and bone marrow cells culture.
This serum provides a wide variety of macromolecular proteins, low molecular weight nutrients, and other compounds (hormones and attachment factors) enhancing the *in vitro* growth of cells.
All raw materials are certified (EU approved) and each batch is sample tested for the presence of viruses and mycoplasma.

Features

- Screened for cytogenetics application: peripheral blood and bone marrow cells culture.
- Suitable also for amnion and *chorionic villi* cells.
- 100 nm filtered.
- Shelf life: 5 years at -20°C.

ChromoLymphoB Proliferation MIX

Recently, for patients with haematological disorder, the analysis of chromosomal aberrations of neoplastic cells has proved significant Diagnostic and Prognostic info!
The most valuable prognostic test would be the examination of bone marrow or peripheral blood cells.
Speciments could be cultured by adding a small amount of sample to a culture tube containing a nutrient rich medium, and metaphase spreads can be obtained from these within a few hours.
ChromoLympho-B Proliferation MIX, is the mix of ChromoLypmho B Factor and Interleukin 2. ChromoLypmho B Factor is a "new generation" proliferation reagent that used in vitro in cultured peripheral blood/bone marrow cells from patients affected with chronic lymphocytic leukaemia (CLL) and other B-cell lymphoproliferative syndromes, has proved a very high success rate of metaphase analysis and more importantly, an impressive abnormality rate similar to Fish analysis findings.

Features

- Tube with both ChromoLympho-B Proliferation Factor (10nmol), and IL2 (500IU), yeast source.
- Tested for *in vitro* culture of Peripheral Blood and Bone Marrow cells
- To be used on samples from patients affected with CLL and other B cell lymphoproliferative disorders
- Lyophilised: very stable and long shelf life: at -20°C.
- User friendly and fast protocol.

ChromoTube

ChromoTube are tubes with a flat side ideal for growing peripheral blood and bone morrow cells.
These tubes have been developed to be used in combination with our Chromosome Medium P (for peripheral blood) and M (for bone morrow).
The medium is retained in the flat-side of the tube that is incubated on the tray in horizontal position to provide increased surface for improved gas exchange and better growing performance of lymphocyte and bone marrow cell cultures.
Following a fast and easy protocol the lab will reach high quality and standardized results for the chromosome preparation, and subsequent analysis (chromosomal banding or molecular investigation).

Features

- Easy to use: each box contains 3 bags; 50 tubes/bag, for a total of 150 ChromoTubes ready to use.
- Suitable for culture and analysis of peripheral blood and bone marrow cells.
- Tube: polystyrene; Screw cap: polyethylene resins mix .
- Dimensions: L x W: 110 x 16mm. Suggested working volume, 5-6 ml.
- Gamma ray treated, shelf life 5 years.

Prenatal analysis

Prenatal diagnosis to identify fetal genetic disorders started in the early 1970s. Women with pregnancies at increased risk of chromosome abnormality (usually because of maternal age, altered serum metabolites, or ultrasound abnormalities of the fetus) undergo invasive sampling of either amniotic fluid (AF), *chorionic villi* (CVS) or, rarely, fetal blood. Material from these samples is cultured to obtain dividing cells and then harvested and prepared for full karyotype analysis of metaphase chromosomes[6].

During the last three decades, improved technology for prenatal diagnosis by karyotiping has mainly involved methods to obtain less condensed chromosomes and to reduce culture time. For example, from 1987 to 1998, the average reporting time in the UK decreased from 20.2 to 13.8 days for amniotic fluid samples and from 21.3 to 14.5 days for CVS[7].

One innovative technique for the culture and analysis of adherent cells from amniotic fluid and *chorionic villi* is the *in situ* one. The primary advantage of using the *in situ* method instead of culture in T-Flask is that it provides information about the colony originated from a cell.

This is important to decide whether an abnormality seen in some, but not all cells represents true mosaicism (constitutional mosaicism) or an artifact of tissue culture (pseudo mosaicism).

No inference can be made about the origin of cells when using the flask method, because cells from all colonies are mixed together once they are detached from the growing surface. Therefore, it is impossible to tell if multiple cells exhibiting the same chromosomal abnormality arose from one or multiple colonies[8].

Another advantage of the *in situ* method is that there is usually a shorter turnaround time because only primary cultures are harvested. Flask cultures are often subcultured, adding days to the culture time.

Amniomed® Smart

Amniomed® Smart is a highly specialized medium for *in vitro* culture, growth of human amniotic fluid cells and *chorionic villi* biopsy samples used in cytogenetic applications for karyotyping and Fluorescent *in situ* Hybridization (FISH) purposes.

Amniomed® Smart is also recommended for short incubation (24-48 hours) of *chorionic villi* samples, for the so called "direct method" using cytotrophoblast spontaneous metaphases for karyotyping purposes[9]. As a complete, ready to use medium, it contains all the necessary growth factors, L-glutamine, phenol red, sodium bicarbonate, antibiotics and FBS. The innovative formulation provides a more efficient and fast cell attachment and growth, resulting in earlier chromosome analysis, and reduces handling steps and the possibility of contamination.

Features

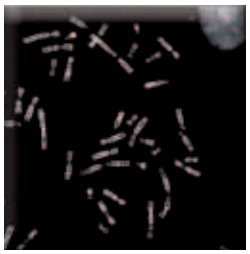
- Designed for primary cultures of human amniotic fluid cells and *chorionic villi* samples.
- Suitable for the "direct method" on *chorionic villi* samples.
- Promotes fast cells attachment, guarantees the cell growth in 7-9 days.
- Ready to use and available in liquid form, frozen.
- Shelf life: 24 months at -20°C. Very long stability, once thawed store at +2°C/+8°C for 14 days.
- Developed for either open (in a 5% CO_2 atmosphere) or closed culture systems.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.

Amniomed® Plus

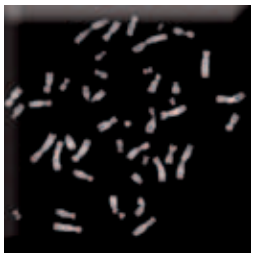
Amniomed® Plus is a medium specifically developed for primary culture of amniotic fluid cells and CVS for fetal karyotyping. This medium promotes optimal *in vitro* adhesion and growth of embryonic cells, reducing the time required for prenatal cytogenetic diagnosis, moreover it is optimized for both *in situ* and flask culture. Amniomed® Plus is a complete medium (no addition required), sterile and ready to use.

Features

- Ready to use and available in liquid form, frozen.
- Developed for either open (5% CO_2) or closed culture systems.
- Short turnaround time: under ideal condition, guarantees cell growth in 8-9 days.
- Shelf life: 24 months at -20°C. Once thawed, store at +2°C/+8°C for maximum 8 days.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.



Amniocytes



Villi

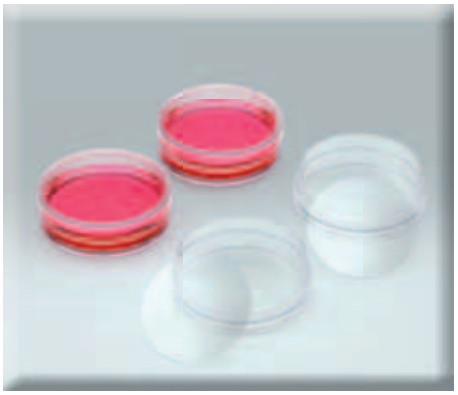
Metaphasic chromosome spreads routinary obtained using Amniomed®Smart with standard diagnostic methods.

Amniodish

Amniodish is a support for *in situ* culture of adherent cells and in particular amniocytes and *chorionic villi*.
Amniodish is a ready to use 35 mm Petri dish including a round coverglass slide.
The slide allows to grow the cell *in situ* and to perform directly chromosomal banding or molecular investigation (i.e. fluorescent *in situ* hybridisation, FISH) avoiding trypsinization step.

Features

- Easy to use: 40 sterile trays ready to use, for a total of 240 Amniodish.
- Slide dimensions: 32 mm diameter, 0.13-0.16 mm thickness.
- Suitable for *in situ* culture and direct analysis, without trypsinization.
- Short turnaround time: only primary cultures are harvested.
- Suitable for chromosome banding and FISH analysis.
- Gamma ray treated, shelf life: 2 years.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.

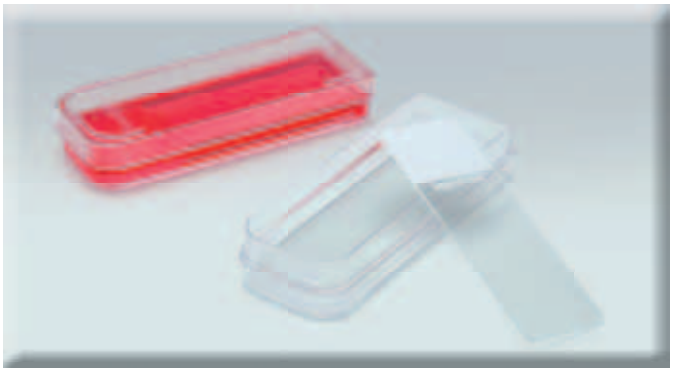


Amnioslide

Amnioslide is a support for *in situ* culture of adherent cells and in particular amniocytes and *chorionic villi*.
The use of SuperFrost® slide inside the culture chamber allows to perform directly chromosomal banding or molecular investigation (FISH), avoiding trypsinization step.

Features

- Easy to use: 30 sterile ready to use trays, 60 chambers.
- Slide dimensions: 25x75 mm; 12,5 cm^2 culture area.
- Suitable for *in situ* culture and direct analysis, without trypsinization.
- Short turnaround time: only primary cultures are harvested.
- Suitable for chromosome banding and FISH analysis.
- Shelf life: 2 years.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.



Superfrost® is a registered trademark by gerhard menzel, glasbearbeitungswerk gmbh & co. Kg - saarbrückener str. 248 - D-38116 braunschweig.
Phone: +49 (0)531 590080 - fax: +49 (0)531 509799.

AmnioFlask

AmnioFlask is a modern support for *in situ* culture of amniocytes, *chorionic villi* derived cells, and other adherent cells.
AmnioFlask is a flask ultrasonically welded to a polystyrene microscope slide.
The screw cap guarantees a liquid and gas tight seal to prevent contamination and leakage during flask handling. At the end of the *in situ* culture the flask is easily removed from the slide, and is possible to perform immediately chromosomal banding or molecular investigation. On the bottom of the slide a barcode label is attached.
Barcodes are essential for samples tracking and represent the safest way for managing large amount of data, improving accuracy, efficiency and safety levels of storage and reducing costs.

Features

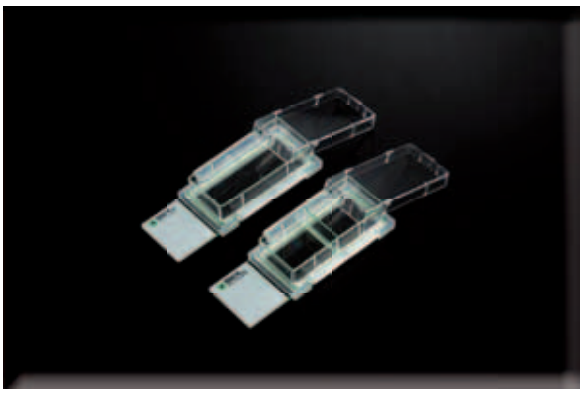
- Easy to use: 49 sterile ready to use trays, 245 flasks.
- Slide dimensions: 25x75 mm, 9 cm^2 culture area.
- Suitable for *in situ* culture and direct analysis, without trypsinization.
- Short turnaround time: only primary cultures are harvested.
- Suitable for chromosome banding and FISH analysis.
- Traceability: barcode on the slide provides the safest way to keep track of sample.
- Gamma ray treated, shelf life: 5 years.

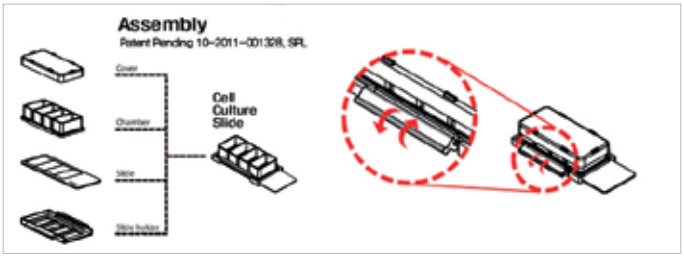
Cell Culture Slide

SPL had developped optimized supports for the *in situ* culture of amniocytes, *chorionic villi* derived cells, and other adherent cells. These new Cell Cultute Slide are made with a polystyrene chamber with cover, and a microscope glass slide kept together with a very smart assembly system, without using adhesive that could be cytotoxic or could create problems of breakage while detaching the Chamber. At the end of the *in situ* culture the chamber is removed from the slide, and is possible to perform immediately chromosomal banding or molecular investigation (i.e. fluorescent *in situ* hybridisation, FISH).

Features

- Smart Assembly system: no chemical adhesives (non-cytotoxic, non-pyrogenic).
- Suitable for *in situ* culture and direct analysis, without trypsinization.
- Short turnaround time: only primary cultures are harvested.
- Suitable for chromosome banding and FISH analysis.
- Easy to use: 6 Chambers supplied in a practical tray; 2 trays/case for a total of 12 chamber.
- Trays can be stacked on one another, and used as incubation racks.
- Leakage testing: no leakage observed after 7 days incubation at 37°C.
- Gamma ray treated, shelf life: 3 years.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.





Equipment

EuroClone answers to the need of automation and standardization of procedures in the Cytogenetic labs through a complete range of instruments that allow to improve all the manual operations required by chromosome preparation steps; these devices will ensure excellent results, perfectly reproducible in any environmental condition, and will drastically reduce the time and the work-load.

Quickchrome

Multislide system for chorionic villi samples with "direct preparation"

Quickchrome is an instrument that optimizes the quality of chromosome preparations, obtained from cytotrophoblastic cells of *chorionic villi* samples (CVS) processed by "direct technique" (either immediately after the sampling or after 24-48 hours of incubation at 37°C), through the homogeneous dispensation of the sample on the slides.
The "direct technique" (and especially the laying of cells suspended in acetic acid solution) is a procedure that, if done manually, has several drawbacks:

- an excessive number of metaphases with random loss of chromosomes
- low quality of banding, often making difficult/impossible the chromosome analysis
- too high and uncontrolled variability of results.

The operator can set the best parameters, in terms of temperature and speed of the plate, finding the most convenient condition for the evaporation of the aqueous acetic acid; this, in turn, will produce the ideal chromosome spreading.

Features

- The instrument is provided of a control panel; the setting values are shown by two digital displays, and can be stored and retrieved when needed.
- Both temperature and speed of the plate are electronically controlled.
- Plate heating range: 25-80°C.
- Plate translation speed range: 4,5 - 11 min.
- The plate can be used also for ageing of slides, and FISH application.

- Capacity: 6 slides.
- Size: 160 mm x 410mm x 360 mm (H x W x D)
- Weight: 11 kg

Hychrome®

In situ hybridisation system

FISH (fluorescent *in situ* hybridization) is a technique that can be used in cytogenetics to detect and localize the presence or absence of specific DNA target sequences on chromosomes, using fluorescent probes. FISH results can be used in genetic counseling, medicine, and species identification.

Hychrome® is an innovative system for *in situ* denaturation and hybridization probe procedures. The system is a single heating module, with temperature controlled by a digital microprocessor, and a humidity chamber that reduces dehydration, resulting in high signals and low background hybridization. The proven temperature control technology, and the possibility to denature and hybridize the sample in one module, assure a low intra and inter-slide temperature variability and a good reproducibility.

Features

- Precision: well-defined control of temperature and humidity.
- Flexibility: possibility of overnight hybridization.
- Standardization: reduction of hand-operated steps.
- Versatility: compatible with all conventional FISH assay.
- Possibility to store up to 10 programs.
- CE / IVD marked: manufactured according to the European Community directive for *in vitro* Diagnostics.

- Capacity: 12 slides.
- Plate heating range: RT+5°C up to 100°C.
- Speed of ramping : up to 2°C/sec.
- Accuracy: +/- 0,2°C.
- Resolution: +/- 0,1°C.
- Size: 210 mm x 210 mm x 450 mm (H x W x D)
- Weight: 11 kg

Optichrome Plus®

NEW!

Controlled evaporation chamber for optimized chromosome preparations

The quality of samples preparations for chromosome analysis depends largely on the environmental conditions in which the final evaporation of the fixative takes place. Given that temperature and humidity are constantly varying, it is easy to understand the requirement for a system that enables cytogenetists to work always under standardized conditions[10].

Optichrome® PLUS has been specifically designed to minimize all problems related to those critical unstable parameters, allowing the technician to set and control both temperature and humidity, thus defining the ideal working conditions related to a certain protocol.
Optichrome® PLUS has a new design, more compact and more ergonomic, with several new features that will help the operator and speeds up the workflow.

Features

- 7" Touch-screen colour display.
- 9 Programs where is possible to save all details (name, sample type, evaporation conditions….).
- 4 timers, one for each drawer, can run independently.
- Alarm system for routine maintenance, managed through display.
- Internal data memory and improved system of self diagnostic able to verify the proper functioning of the machine.
- Remote control system, trough the USB port, for software upgrade, technical assistance and remote management tool.
- New chassis material: white polymethylmethacrylate (sides) and, metal sheet (front/back).

- Possibility to process slides of various shape (round, rectangular…).
- Safety: active charcoal filters and ventilation system
- Operating ranges of temperature and humidity are:
  20°C - 40°C (±0.5°C)
  35 % - 60 % (±2%)
- Size: 540 mm x 608 mm x 540 mm (H x W x D).
- Weight: 65 kg

Autochrome

Robotic dispenser for prenatal Cytogenetics

Autochrome is a robotic dispenser for automated processing of chromosome preparations from adherent cells cultures, in particular amniocytes and *chorionic villi* samples.
Through a flexible software Autochrome allows to reproduce all the manual operations required by chromosome preparation: hypotonic treatment, prefixation and fixation steps.
The effective filters and ventilation system combined with the manufacturing according to the European electrical safety standards guarantees safety for the operator.
The synergic use of Autochrome together with Optichrome® assures not only time saving, but also standardization and high quality results in chromosome preparation, suitable for more reliable, easy and quick routine karyotype analysis.

Features

- Programmability: the instrument is provided with a flat membrane touch screen and a user-friendly software.
- Flexibility: Autochrome can process different culture supports: Amniodish, Amnioslide, AmnioChamber and other.
- Validated programs for different supports already fixed in the software. Possibility to modify the programs for specific needs and chromosome preparation optimization.
- Safety: active charcoal filters and ventilation system prevents toxic gas emissions.

- Operating capacity: 2 chambers with independent opening, each one accepts up to 36 Amniodish or 24 Amnioslide/Chamber.
- Size: 520 mm x 1000 mm x 700 mm (H x W x D)
- Weight: 100 kg

Postnatal analysis

Cat.No.	Description	Q.ty/Format	Number of tests
EKAMTP	Chromosome Kit P	10/culture tubes	10
for EKAMT200 (20/culture tubes) order 2 x EKAMTP; for EKAMT500 (50/culture tubes) order 5 x EKAMTP			
EKAMTB100	Chromosome Medium P	100 ml/bottle	nearly 20
EKAMTB500	Chromosome Medium P	500 ml/bottle	nearly 100
EKAMTM	Chromosome Kit M	10/culture tubes	10
for EKAMT200M (20/culture tubes) order 2 x EKAMTM; for EKAMT500M (50/culture tubes) order 5 x EKAMTM			
EKAMTB100M	Chromosome Medium M	100 ml/bottle	nearly 20
EKAMTB500M	Chromosome Medium M	500 ml/bottle	nearly 100
EKAMTSY-20	Chromosome Synchro P	20/culture tubes; 4 x 1,5 ml/microtubes	20
EKAMTSY-50	Chromosome Synchro P	50/culture tubes; 8 x 1,5 ml/microtubes	50
EKAMTBSY-100.2	Chromosome Synchro P	2 x 100 ml/bottles; 8 x 1,5 ml/microtubes	nearly 40
EKAMTBSY-100.5	Chromosome Synchro P	5 x 100 ml/bottles; 16 x 1,5 ml/microtubes	nearly 100
EKAMTBSY-500	Chromosome Synchro P	1 x 500 ml/bottle; 16 x 1,5 ml/microtubes	nearly 100
EKAMTSY-20M	Chromosome Synchro M	20/culture tubes; 4 x 1,5 ml/microtubes	20
EKAMTSY-50M	Chromosome Synchro M	50/culture tubes; 8 x 1,5 ml/microtubes	50
EKAMTBSY-100.5M	Chromosome Synchro M	5 x 100 ml/bottle; 16 x 1,5 ml/microtubes	nearly 100
EKAMTS008	Synchroset	8 x 1,5 ml/microtubes	nearly 50
EKAMP010	ChromoLymphoB Proliferation Factor	500 nmol/tube	50
EKAMP010M	ChromoLymphoB Proliferation Mix	50 tubes	50
EKS0195D	Chromosome FBS	100 ml/bottle	N.A.
EKAMP150	ChromoTube	150 tubes	150
EKPHAM01	PHA-M	5 ml	N.A.

Prenatal analysis

Cat.No.	Description	Q.ty
EK AMG-200	Amniomed® Plus	100 ml/bottle
EK AMG-200-10	Amniomed® Plus	10 x 100 ml/bottle
EKAMM100	Amniomed® Smart	100 ml/bottle
EKAMN240	Amniodish	240 pcs
EKAMS60F	Amnioslide, SuperFrost®	60 pcs
EKAMF250	AmnioFlask	245 pcs
SP101307	SPL Cell Culture Slide - 1 well (Vol. 2.5-5.5 ml)	12 pcs
SP101308	SPL Cell Culture Slide - 2 well (Vol. 1.2-2.5ml)	12 pcs

Equipment

Cat.No.	Description
EKAMH960	Optichrome® Plus - Evaporation chamber for optimized chromosome preparations
EKAMH953	Cooling unit for Optichrome® Plus
EKAMH1001	Autochrome - Robotic dispenser for prenatal Cytogenetics
EKAMH900	Quickchrome - Multislide system for CVS "direct preparation"
EHP12205IVD	Hychrome® - *In situ* hybridisation system

Related Products

Cat.No.	Description	Format
MEDIA		
ECB9006D	RPMI 1640 MEDIUM	100 ml
ECB9006L	RPMI 1640 MEDIUM	500 ml
ECM2001L	RPMI 1640 MEDIUM with stable L-Glutamine	500 ml
ECM0620L	RPMI 1640 MEDIUM w/o Folic Acid (FRAGILE X CHROMOSOME MODIFICATION)	500 ml
ECB2000L	RPMI 1640 MEDIUM with L-Glutamine	500 ml
ECB7503L	HAM'S NUTRIENT MIXTURE F-10	500 ml
ECM0140D	HAM'S NUTRIENT MIXTURE F-10 with L-Glutamine	100 ml
ECM0140L	HAM'S NUTRIENT MIXTURE F-10 with L-Glutamine	500 ml
SALT SOLUTIONS		
ECB4004L	PBS, phosphate buffered saline, w/o Calcium & Magnesium	500 ml
ECB4004X12	PBS, phosphate buffered saline, w/o Calcium & Magnesium	10 x 500 ml
ECB4007L-50	HANK'S balanced salts solution, w/o Calcium & Magnesium	10 x 500 ml
ANTIBIOTIC/ANTIMYCOTIC SOLUTIONS		
ECM0010D	Amphotericin B (25mg/l), penicillin (10.000 U/ml), streptomycin (10.000 mg/l) - 100X	100 ml
ECM0011B	Gentamycin Solution (10mg/ml)	10 ml
ECM0012B	Gentamycin Solution (50mg/ml)	10 ml
ECM0012D	Gentamycin Solution (50mg/ml)	100 ml
ECB3001D	Penicillin (10.000 U/ml), Streptomicin Solution (10.000 mg/l) - 100X	100 ml
ANCILLARY REAGENTS		
ECB3000D	L-Glutamine (200mM) Liquid - frozen 100X	100 ml
ECB3000D-20	L-Glutamine (200mM) Liquid - frozen 100X	20 x 100 ml
ECB3004D	Stable L-Glutamine (200mM) Liquid - frozen 100X	100 ml
ECM0040B	Colcemid 10 µg/ml in PBS Liquid	10 ml
ECM0040C	Colcemid 10 µg/ml in PBS Liquid	20 ml
ECM0040N	Colcemid 10 µg/ml in PBS Liquid	50 ml
ECM0970D	Distilled Water Sterile, Tissue Culture Tested	100 ml
ECM0970L	Distilled Water Sterile, Tissue Culture Tested	500 ml
ECM0180D	HEPES Buffer Solution 1M Liquid	100 ml
ECM0180L	HEPES Buffer Solution 1M Liquid	500 ml
ECM0543D	Potassium Chloride 0,075M	100 ml
ECM0980D	Sodium Bicarbonate 7,5% Liquid	100 ml
ECM0542D	Sodium Pyruvate 100 mM Liquid - frozen	100 ml
ECB3052D	Trypsin 0,05% - EDTA 0,02% in PBS w/o Ca, Mg and Phenol Red Liquid - frozen	100 ml
ECB3052D-20	Trypsin 0,05% - EDTA 0,02% in PBS w/o Ca, Mg and Phenol Red Liquid - frozen	20 x 100 ml
ECM0920D	Trypsin 0,05% - EDTA 0,02% with Phenol Red Liquid - frozen	100 ml
ECB3051D	Trypsin 2.5% (w/v) in HBSS w/o Ca & Mg and Phenol Red Liquid - frozen	100 ml

Cat.No.	Description	Format
DISPOSABLE		
ET7012	Primo® TC Flask 12 cm^2 plug seal- screw cap	200 pcs
ET7013	Primo® TC Flask 12 cm^2 screw cap- w/filter	200 pcs
ET7025	Primo® TC Flask 25 cm^2 plug seal- screw cap	200 pcs
ET7026	Primo® TC Flask 25 cm^2 screw cap- w/filter	200 pcs
ET2035	Primo® TC Dishes 35mm	500pcs
ET2060	Primo® TC Dishes 60mm	500 pcs
ET2100	Primo® TC Dishes 100mm	300 pcs
ET20150	Primo® TC Dishes 150mm	100 pcs
ET5015B	Primo® EZ tubes 15 ml PP	500 pcs
ET5050B	Primo® EZ tubes 50 ml PP	500 pcs
EPS01N	Primo® Pet pre-sterilized 1 ml	500 pcs
EPS02N	Primo® Pet pre-sterilized 2 ml	500 pcs
EPS05N	Primo® Pet pre-sterilized 5 ml	200 pcs
EPS10N	Primo® Pet pre-sterilized 10 ml	200 pcs
EPS25N	Primo® Pet pre-sterilized 25 ml	150 pcs
EPS50N	Primo® Pet pre-sterilized 50 ml	100 pcs

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