

ProCell

Cytogenetic Culture & Harvesting Reagents

All ProCell products are designed for cytogeneticists to resolve the very real problems encountered within both clinical and research laboratories in their day-to-day work, and are designed to fit neatly into existing laboratory protocols.

The ProCell range can increase mitotic index significantly, improve chromosome length, morphology and spreading, shift cytoplasm and successfully break up blood clots - all of this on a variety of sample types.

Anti-Clotting Reagent (ACR)

GGS - JL001

ACR reduces culture failure rates and therefore the requirement for repeat sampling in both blood and bone marrow samples.

ACR is added to a clotted sample and a short protocol is followed prior to setting up in culture. 90% of clotted bone marrow/blood samples are successfully cultured following treatment with ACR.

ACR has been found to be very effective for the fast and safe removal of maternal blood clots from CVS. CVS treated with ACR have been found to be ready for harvest an average of two days earlier than normally treated control samples.

Chromosome Resolution Additive (CRA)

GGS - JL003a

CRA is a simple-to-use product that increases chromosome resolution and is safer than ethidium bromide. A working solution of CRA is simply added to the culture up to 90 minutes prior to metaphase arrest.

This product has been shown to increase QA band level on different cytogenetics sample types. CRA is a colchicine antagonist, this means that it reduces the chromosome shortening effect of colchicine. CRA can also be used alongside ethidium bromide for extra chromosome length.



1 without CRA



1 with CRA

Comparison of chromosome pairs from the same AML cell line, one with CRA added prior to metaphase arrest

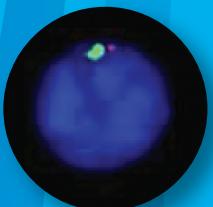
Cytoclear

GGS - JL004

Cytoclear is an effective, easy-to-use product that improves the quality of both brightfield and FISH samples by removing troublesome cytoplasm. Cytoclear is incorporated into the fix stage of the harvest, usually requiring little change to existing procedures and is appropriate for both freshly fixed and archived fixed suspensions. Cytoclear can be used to rescue cultures that have harvested badly.



Without Cytoclear



With Cytoclear

Archival fixed bone marrow preparations labelled with Cytocell XY

Dual label FISH probe. Images courtesy of Cytocell Ltd

Metaphase Arresting Solution (MAS)

GGS - JL008

Metaphase arresting solution is a gentle alternative to colchicine/colcemid and contains colchicine and vinblastine sulphate. This means that it is less toxic to cells because the concentration of colchicine is reduced whilst the extrablocking activity of vinblastine sulphate means that it is extremely effective. Rounded-up cells in culture are much less likely to lift off when treated with MAS and MAS may be used as a direct replacement for colchicine/colcemid without major alteration to existing laboratory protocols.

Erythrocyte Lysis Solution (ELS)

GGS - JL009

ELS works by lysing red blood cells, sometimes found in amniotic fluid and bone marrow samples. These can prohibit growth by restricting colony size. ELS gently lyses the red blood cells without being toxic to the cells that are to be cultured. ELS can also be used on bone marrow cultures.

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ProCell Hypotonic Solutions

GGS - JL005 Optimal Hypotonic Solution

GGS - JL006 Buffered Hypotonic Solution

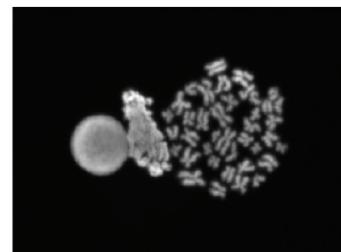
There are two ProCell hypotonics. These improved hypotonic solutions were developed to assist in spreading chromosomes from metaphases of challenging sample types such as solid tissues or bone marrow samples. They consist of balanced formulations of salts to burst open cells whilst maintaining a high degree of cohesion and fluidity within the metaphase, giving rise to superior chromosome spreading.



BHS - Buffered
Hypotonic Solution



KCL - Potassium
Chloride Solution



OHS - Optimal
Hypotonic Solution

Use of different Hypotonics on a 47,XY,+21 Lymphoblastoid cell line.

ProCell Culture Growth Supplements

Our range of cell culture growth supplement products significantly improve cell growth rates in specific sample types. This means mitotic index may be increased by at least 100%. A marked improvement in chromosome morphology is also observed. These supplements also reduce culture failure rates, reducing the requirement for repeat sampling on poor samples. All of our Growth Supplements are very easy to use, being simply added to the laboratory's existing culture medium for that specific sample type.

Bone Marrow Growth Supplement (BMGS)

GGS - JL002

Lymphocyte Growth Supplement (LGS)

GGS - JL002/L

Solid Tumour Growth Supplement

GGS - JL010

Lymphoma Growth Supplement

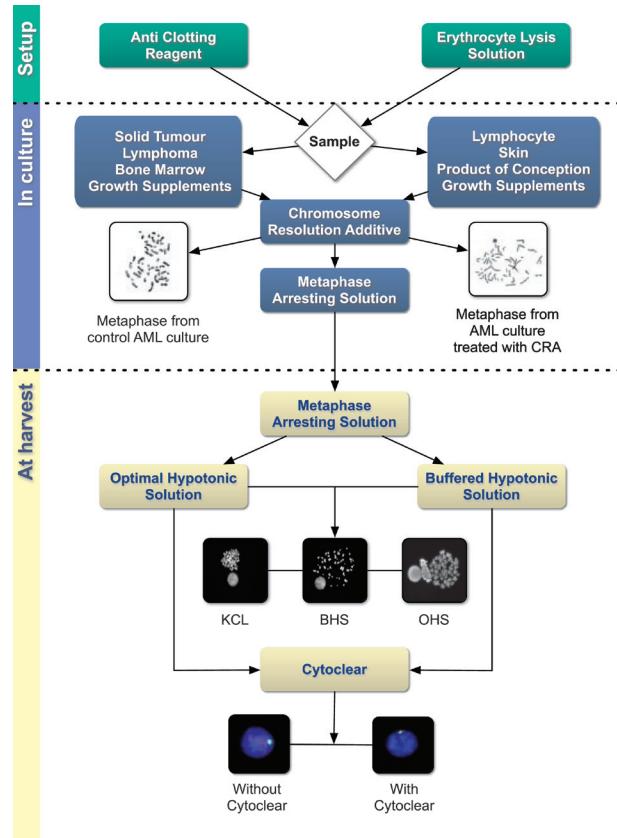
GGS - JL011

Skin Growth Supplement

GGS - JL012

POC Growth Supplement

GGS - JL013



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