

Anti-Clotting Reagent

Cat GGS-JL-001

ProCell™ Reagents

Pack size supplied (200mg) to make up 100mls working solution

Patent Pending

GTIN-13: 5060174130021

Date of original issue: January 2012

Date of current issue: January 2015

Revision date: June 2015

PRODUCT DESCRIPTION

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Anti-clotting Reagent

Is a newly developed product, consisting of a mixture of enzymes that actively break down the proteins that compose blood clots. Blood clots are hence quickly dissolved in precious cytogenetic samples, such as bone marrows and blood specimens that arrive clotted at the laboratory.

This product does not contain any streptokinase, which can be toxic to cells. Most clotted specimens that were previously lost due to clotting can now be rescued. Valuable bone marrow specimens arriving in containers with inadequate heparin can now be used to obtain metaphases, removing the requirement for repeat sampling in many cases. Follow Procedure 1 for bloods and bone marrows.

Anti-clotting Reagent is also effective on solid tumours, lymph node sections and CVS. These specimens often contain blood clots that hinder growth of the required cell type. Tests show that indirect CVS treated with Anti-Clotting Reagent are ready an average of 2 days earlier. Anti-clotting Reagent will also help to break down the tissues so colonies can be established more rapidly. Follow Procedure 2 for solid specimens.

PROCEDURE

Procedure 1

1. Dissolve the sample of the Anticlotting Reagent in 100ml of PBS. Mix well by inverting the solution in a tube and filter sterilize using a 0.22 micron syringe filter once the powder is fully dissolved. This filtered solution should then be aliquoted into 10 ml lots and stored frozen until ready for use.
2. Meanwhile centrifuge the clotted specimen in its original collection container for ten minutes.
3. Replace the supernatant with 10ml of sterile Anticlotting Reagent solution and mechanically start to gently break the clots using a sterile glass pipette, for 30 seconds only.
4. Incubate the specimen in a 37 degree Centigrade water bath until no clots can be seen.
5. Most clots dissolve within five to ten minutes.
6. When clots have dissolved, centrifuge the specimen for ten minutes.
7. Discard supernatant and wash twice with culture media, centrifuging between each wash.
8. Culture 'buffy-coat'.

Procedure 2

NOTE: This procedure should be used alongside a control.

1. Dissolve the sample of the Anticlotting Reagent in 100ml of PBS. Mix well by inverting the solution in a tube and filter sterilize using a 0.22 micron syringe filter once the powder is fully dissolved. This filtered solution should then be aliquoted into 5 ml lots and stored frozen until ready for use.
2. Working with the sample in a Petri dish and making observations under an inverted microscope, add the 5 mls of Anticlotting reagent to the sample.
3. Wait for 5 – 10 minutes, under the microscope the blood clots should be seen to dissolve and the surrounding solution should become red in colour.
4. Pipette away all the debris and blood.
5. Wash 2-3 times in PBS, pipetting away the solution each time.
6. Set up the tissue in culture as normal.

QUALITY CONTROL

All batches are tested for ability to break down fibrin clots within 30 minutes.

STORAGE

Store the undissolved product at 4°C away from light for no more than 12 months. Frozen dissolved solution may be stored for up to 12 months.

Never heat, freeze or expose the powdered product to drastic pH changes.

IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Product: Cat# GGS-JL-001 **Anti-Clotting Reagent**

A **Laboratory Reagent** for research purposes only, for removal and dispersion of blood clots from samples.

Strictly Not for Human Therapeutic Use

Company details:

Genial Genetics
The Printworks
Sealand Road
Chester
CH1 4QS
United Kingdom

Combined Telephone and Fax Number: +44 (0) 1244 757 155

COMPOSITION AND COMPONENT DATA

Heparin and Enzymes in Dextrose/Saline solution.

HAZARDS IDENTIFICATION

WARNING: Product is an anti-coagulant.

FIRST-AID MEASURES

AFTER INHALATION

Remove from exposure, if difficulty in breathing seek medical advice. Seek medical advice.

AFTER EYE CONTACT

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical advice.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. If ingested - Give large quantities of water. Seek medical advice.

AFTER SKIN CONTACT

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Seek medical advice is skin has been severely exposed.

FIRE FIGHTING MEASURES

Not applicable.

ACCIDENTAL RELEASE MEASURES

Powder: Collect by wiping with water dampened tissues.

Solution: Mop up with tissues.

In both cases wear rubber gloves, and place used tissues in sealed plastic bag for proper disposal.

HANDLING AND STORAGE

Keep unused containers tightly closed

Store product at 4C for not more than expiry date.

EXPOSURE CONTROL AND PERSONAL PROTECTION

Only work in a Class 2 biological safety cabinet.

Always wear a lab coat and rubber gloves.

Wash hands after handling.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: fine white powder

Boiling Point: As for water (prepared working solution)

Vapour Pressure (pascals): As for water (prepared working solution)

Specific Gravity: 1 (Water = 1) (prepared working solution)

Flashpoint: N/A

Flammability Limits (%): N/A

TOXICOLOGICAL INFORMATION

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Not a known carcinogen.

STABILITY AND REACTIVITY

Stable as supplied (see protocols for working solution stability)

ECOLOGICAL INFORMATION

Data not yet available

DISPOSAL CONSIDERATIONS

Use approved government contractor.

Observe all International, National, State and Local environmental laws.

TRANSPORT INFORMATION

Does not contain DOT classified ingredients.

Not regulated as a hazardous material.

REGULATORY INFORMATION

S 36/ 37 – Wear suitable protective clothing and gloves

S 7/ 47 – Keep container tightly closed and at temperature not exceeding 4°C

OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Genial Genetic Solutions Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.