Earle's Balanced Salts Solution (EBSS)

w/o Calcium w/o Magnesium

CAT N°: L0601

Storage conditions: Room temperature

Shelf life: 48 months

Composition: Displayed on website; also available on request

Colour: Red solution

pH: 7.3 ± 0.3

Osmolality: 278 mOsm/kg ± 10 %

Endotoxin: < 1 EU/ml

Sterility tests:
- Bacteria in aerobic and anaerobic conditions
- Fungi and yeasts

Cell Growth test: Not applicable

Other tests: Not applicable

Recommended use:
- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store product in an area protected from light (not necessary for saline solutions).
- Manipulate the product in aseptic conditions (e.g. : under laminar air flow)
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall…)

The product is intended to be used in vitro for research or further manufacturing only and not for use as an Active Pharmaceutical Ingredient or food or animal feed.

Application:

The first use of a balanced salts solution for cell culture is attribute to Sydney Ringer (1885). He has developed an inorganic salts solution to maintain the contractility of mammal cardiac cells. A less specific salts solution has benne developed by Tyrode for general mammal cells. « Tyrode's salt solution » was used to dilute protein component of media from natural origin. Since this time, many other salts solutions has been developed for cell culture Balanced salts solutions have several roles :

- solution for transportation, dilution, irrigation to maintain intra and extra-cellular osmotic pressure
- solution providing water and some inorganic ions for cellular metabolism
- solution which associated to a sugar as glucose, provides the principal source of energy for cellular metabolism
- buffer solution to maintain a medium in physiological pH conditions (7.2-7.6)

The EBSS modified (without calcium and without magnesium) can be used to wash and re-suspend cells during the dissociation process when calcium and magnesium could inhibit trypsin action.

Uses:
Supplements, such as antibiotics, should be added as sterile supplements to the medium.
Storage conditions and shelf-life of supplemented products will be affected by the nature of the supplements.

Signs of Deterioration:
Medium should be clear and free of particulate and flocculent material. Do not use, if medium is cloudy or contains precipitate.
Other evidence of deterioration may include colour change or degradation of physical or performance characteristics.

Remarks: Not applicable