



User Manual

OriCell™ Mouse Embryonic Stem Cell Growth Medium

Cat. No. MUXES-90011

PRODUCT DESCRIPTION:

OriCell™ Mouse Embryonic Stem Cell Growth Medium consists of optimized Mouse Embryonic Stem Cell (mESC) Basal Medium, cell culture supplements, and pre-selected fetal bovine serum. This product has been developed for the optimal expansion and maintenance of mouse embryonic stem cells (mESCs), thus allowing the cells to maintain an undifferentiated state while retaining the pluripotential phenotype.

The product is intended for laboratory research use only. It is not intended for diagnostic, therapeutic, clinical, household, or any other applications.

KIT COMPONENTS:

Mouse Embryonic Stem Cell (mESC) Basal Medium (Cat. No. MUXES-03011)	410 mL
Mouse Embryonic Stem Cell (mESC)-Qualified Fetal Bovine Serum (Cat. No. MUXES-05001)	75 mL
Penicillin-Streptomycin	5 mL
Glutamine	5 mL
Nonessential Amino Acid	5 mL
LIF	100 µL
2-Mercaptoethanol	500 µL

INSTRUCTIONS:

Preparation of the Complete Medium

1. Prior to use, thaw the mESC-Qualified Fetal Bovine Serum at 2-8°C overnight or until completely thawed. Gently swirl the bottle to ensure homogeneity. The serum has been heat-inactivated and is ready to use after thawing.



Note: The thawed serum may contain some flocculent precipitates. The presence of these substances in serum does not alter the performance characteristics of the product. It is not recommended to filter the serum to remove these precipitates. Doing so may result in the loss of some serum nutrients.

2. About 30 minutes prior to use, thaw Nonessential Amino Acid, Penicillin-Streptomycin solution, and Glutamine solution at room temperature. Gently swirl the vials to ensure homogeneity.
3. About 10 minutes prior to use, thaw the LIF and 2-Mercaptoethanol at room temperature.



Note: Centrifuge the vials briefly at low speed before removing the caps to ensure recovery of the entire content.

4. Disinfect the external surfaces of the bottles/vials for every component in the kit with 70% v/v ethanol. Allow ethanol to evaporate.
5. Aseptically open the bottles/vials inside a laminar flow hood.
6. Transfer the entire amount of mESC-Qualified Fetal Bovine Serum, Nonessential Amino Acid, Penicillin-Streptomycin solution, and Glutamine solution into mESC Basal Medium.
7. Rinse each vial with a small amount of basal medium. Subsequently transfer the rinse medium back into the bottle of basal medium.
8. To transfer the entire amount of LIF and 2-Mercaptoethanol, add 0.5 mL of medium to the vials, mix by pipetting and then transfer the entire mixture back into the bottle of basal medium.
9. Repeat step 8 several times.
10. Gently swirl the fully supplemented (complete) medium to ensure a homogeneous mixture. The complete medium is now ready to use.



Note: Although each component in this kit is supplied sterile, it is strongly recommended to filter the fully supplemented (complete) medium.

STABILITY AND STORAGE:

All products should be stored in the dark. Mouse Embryonic Stem Cell Basal Medium is stable at 2-8°C for up to one year. Other components are stable at -20°C for up to two years. These products should be discarded beyond the labeled expiration date.

Once prepared, the fully supplemented (complete) medium can be stored for up to one month when stored in the dark at 2-8°C.

For optimal performance, repeated warm-cooling and freeze-thawing should be avoided.

QUALITY CONTROL:

OriCell™ Mouse Embryonic Stem Cell Growth Medium has been tested for performance on mouse embryonic stem cells. The standard evaluation includes:

- Sterility test (bacteria, fungi, and mycoplasma)
- pH test
- Osmolality
- Endotoxin

RELATED PRODUCTS:

Product	Catalog Number
OriCell™ C57BL/6 Mouse Embryonic Stem Cells	MUBES-01001

OriCell™ C57BL/6x129 Mouse Embryonic Stem Cells	MUZES-01001
OriCell™ Strain 129 Mouse Embryonic Stem Cells	MUAES-01001
OriCell™ Non-Essential Amino Acid Cell Culture Supplement	NEAA-10201
OriCell™ Mouse Embryonic Fibroblast Growth Medium	MUXEF-90011
OriCell™ Strain ICR Mouse Embryonic Fibroblast	MUIEF-01002

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