Hybridoma Cell Fusion Agents（for Monoclonal Antibody Research）

Cat : C5320

Size: 1mL/ branch

Storage: 2-8 °C, valid for 12 months.

Product content:

Product Name	Size	Storage
Hybridoma cell fusion agents (for monoclonal antibody research)	1mL/ branch	2-8 °C

PH: 7 - 7.5

Endotoxin: < 1EU/mL

Product description:

Cell fusion, also known as Cell hybridization, refers to the process of membrane fusion, cytoplasmic fusion and nuclear fusion between two or more heterologous cells (species, genus) or protoplasts in contact with each other under the action of external force (melting agent) and the formation of hybrid cells.

Polyethylene Glycol (PEG) is the most commonly used fusion agent in cell fusion chemistry and the preferred cell fusion agent in immunological experiments such as hybridoma monoclonal antibody preparation. This product has the characteristics of simple operation, easy to control, low endotoxin content and high fusion rate, which is suitable for the preparation of hybridoma cells.

Protocols:

Take the mouse hybridoma fusion experiment as an example.

1. Prepare feeder cells a day in advance.
2. Take the cell fusion agent and place it in a 37°C water bath to preheat.
3. In a sterile environment, the SP2/0 cells to be fused were mixed with mouse spleen cells in a 50mL centrifuge tube according to the appropriate cell number ratio, and suspended in an appropriate amount of 1640 medium. After centrifugation at 1200rpm/min for 3-5min, the 1640 medium supernatant was discarded, and the mixed cell mass at the bottom of the centrifuge tube was left for subsequent operations. (Remove the supernatant thoroughly to avoid diluting the fusion agent in later operations)
4. Gently tap the bottom of the centrifuge tube to break up the cell mass and place the centrifuge tube in a 37°C water bath where the fusion process takes place.
5. In a sterile environment, 500μL cell fusion agent was slowly added to the mixed cell mass, and gently stirred with the tip of the gun while adding. It was appropriate to finish adding within 60-90s. After adding, it was left in a 37°C water bath for 30s.

6. Slowly add 37℃ preheated sterile 1640 medium into the centrifuge tube, and there are many specific methods for adding 37℃ preheated sterile 1640 medium. The following methods are for reference only.

1) Add 1mL 1640 medium drop by drop within 30s, gently shake the centrifuge tube while adding, and repeat once;

2) Then add 1mL 1640 medium drop by drop within 40s, gently shake the centrifuge tube while adding, and repeat once;

3) Add 16mL 1640 medium drop by drop within the last 3min.

7. After centrifugation at 1000rpm/min for 10min, the supernatant was removed, and the bottom of the centrifuge tube was hybridoma cells, which could be used for subsequent screening and subcloning experiments.

Notes:

1. Some precipitate may appear after being placed at a lower temperature, but it will disappear as the solution temperature rises. The solution can be frozen if needed, but should be split and then frozen to avoid repeated freezing and thawing.
2. If the biochemical reagents produced by our company are not specially marked, they are basically non-sterile packaging. If they are used for cell experiments, please pre-treat them in advance.
3. The product information is for reference only. If you have any questions, please call 400-968-6088 for consultation.
4. This product is for scientific research use only. Do not use for medical, clinical diagnosis or treatment, food or cosmetic purposes. Do not store in ordinary residential areas.
5. For your safety and health, please wear a lab coat and use disposable gloves and a mask to operate.

Related products:

D8371 Dimethyl sulfoxide DMSO (cell culture grade)
10491 RPMI 1640 containing D-glucose, HEPES, and L-glutamine
P1020 1×PBS, PH 7.2-7.4, 0.01M, liquid