

TECHNICAL NOTES

CLEAR WALL & BLACK WALL PELCO® GLASS BOTTOM DISHES

By WillCo Wells

Product No. 14020-20 through 14026-500

Positioning Embryos / Life Cells

- Our Glass Bottom Dishes are non-cytotoxic and non-pyrogenic. However, there is always a risk of positioning embryos / life cells on or even close to the edge, where the adhesive ring is in direct contact with the media inside the dish. Therefore, it is our advice to use a position for cells, close to the center of the bottom glass (e.g. as in Figure 1).
- **Note:** Our Glass Bottom Dishes have passed many tests, including cytotoxicity tests. They are "non-cytotoxic" and "non-pyrogenic".
 - They have passed tests with "hatched" blastocyst (mouse) embryos, showing that they are safe, when embryo's cells are positioned in the center of the glass bottom.
 - **Warning:** Embryos, specifically "hatched" blastocyst (mouse) embryos are extremely sensitive. Therefore, we advise all users of our Glass Bottom Dishes to be aware of the fact that they consist of:
 - 1. A polystyrene ring and lid (non-cytotoxic);
 - 2. Adhesive! (Considered cytotoxic if in close contact for more than 30 minutes);
 - 3. Cover glass bottom (non-cytotoxic).
- Although manufacturers of "adhesives" have shown certificates confirming "non-cytotoxicity" and our Glass Bottom Dishes passed biological tests for "non-cytoxicity" tested in a "Laboratory for Medical Device Evaluation" it is our advice to position life cells in the center of the glass.
- Position all embryos/eggs in the center of the glass bottom, as indicated in Figure 1, within a small circle or in a small square. Do not use paraffin-oil to cover the droplets!

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Explanation of Figure 1:

Figure 1

2

8 embryos

well positioned

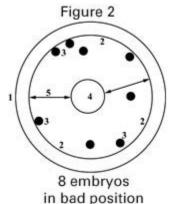
Embryos/eggs (●/○:3) should be positioned on the glass bottom as indicated in Figure 1.

No producer/manufacturer (of e.g. Adhesives or polystyrene) guarantees the life of (hatched) embryos/cells when positioned directly on or close to the adhesive seal (2).

Since the glass proved to be non-cytotoxic for "hatched blastocyst" mouse embryos, over a period of six (6) days, it is our advice to use the positioning, for the maximum of eight embryos, as in Figure 1.

- 1. Outer diameter of the dish: Ø50mm.
- 2. Outer diameter of the glass surface, inside the dish: Ø39mm.
- 3. Black bullets (8) and smallest circles (4) of the same size: embryo(s)/eggs.
- 4. Center of the glass bottom, with embryos:
 - Within small circle Ø15mm (4 black bullets and 4 small circles).
 - Within square of 15mm x 15mm (black bullets) the center (4) is also a good location for the sperm cells
- 5. Distance from adhesive (2), on the outer edge of the inner glass surface, to the embryo/egg:
 = 10mm minimum.

Explanation of Figure 2:



In Figure 2, we show an example of several positions of embryos () 2:3) or eggs that are being used for examination. It is our advice never to use these positions because these cells are or may be sensitive to all existing "Medical Class VI" adhesives.

Note: It is our advice NOT to position an embryo or an egg inside the dish as shown in Figure 2, close to ring 2.

The clear area between 1 and 2 is the polystyrene bottom ring, to which the glass is bonded, using a "non-cytotoxic" adhesive.

- 1. Outer diameter of the dish: Ø50mm.
- 2. Outer diameter of the glass surface inside the dish: Ø39mm
- 3. Black bullets (8): Embryo(s)/eggs.
- 4. Center of the glass bottom, where the embryos should be.
- 5. Distance from adhesive (2), on the outer edge of the inner glass surface, to the embryos/eggs:

= 10mm minimum.

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