## EZSPHERE™ Technical Information A-9

## Examples of cancer cell culture in EZSPHERE™

Presented by AGC Innovative Technology Research Center Advised by K. Miyazaki, Professor Emeritus, Yokohama City Univ.

■Cell species: 10 kinds of cell lines in the table

## **■**Culture conditions:

Seed the cells into EZSPHERE™ and incubate in CO<sub>2</sub> incubator for 7 days (medium: DMEM/F12+10% FBS)

●The number of cells: 2 × 10<sup>5</sup>cells/mL, 0.1mL/well

## Product of AGC Techno Glass Co., Ltd.

●EZSPHERE™ 96well microplate (#4860-900)

Diameter of micro-well: approx. 500µm Depth of micro-well: approx. 100µm

Solid spheroids were formed by the cell lines with strong cell adhesion, while soft spheroids were formed by the cell lines with soft cell adhesion. By using EZSPHERE<sup>TM</sup>, various kinds of spheroids could be formed according to each feature of the cells. (scale bar: 200µm)

%The following information is examples of cell culture by AGC. Spheroids' conditions depend on the culture condition.

| Cancer cell line   | Monolayer culture (2D) | Spheroid culture in EZSPHERE™ (3D) |                      |                      |
|--|------------------------|------------------------------------|----------------------|----------------------|
|  |                        | 1 day after seeding                | 4 days after seeding | 7 days after seeding |
| MKN74 Gastric cancer cell (adenocarcinoma) Solid spheroids were formed                   |                        |                                    |                      |                      |
| DLD-1 Colorectal cancer cell (adenocarcinoma) Solid spheroids were formed and grown well |                        |                                    |                      |                      |

|  | Monolayer culture (2D) | Spheroid culture in EZSPHERE™ (3D) |                      |                      |
|--|------------------------|------------------------------------|----------------------|----------------------|
| Cancer cell line   |                        | 1 day after seeding                | 4 days after seeding | 7 days after seeding |
| Panc-1 Pancreas cancer cell (adenocarcinoma) Soft spheroids were formed and changed into solid spheroid gradually              |                        |                                    |                      |                      |
| VMRC-LCP<br>Lung cancer cell<br>(squamous<br>carcinoma)<br>Solid spheroids<br>were formed                                      |                        |                                    |                      |                      |
| A431 Skin cancer cell (squamous carcinoma) Tight solid spheroids were formed, part of them lost the shape 7 days after seeding |                        |                                    |                      |                      |
| MCF-7 Breast cancer cell (adenocarcinoma)  Solid spheroids were formed, part of them were divided                              |                        |                                    |                      |                      |

| Cancer cell line   | Monolayer culture (2D) | Spheroid culture in EZSPHERE™ (3D) |                      |                      |
|--|------------------------|------------------------------------|----------------------|----------------------|
| Cancer ceil line   |                        | 1 day after seeding                | 4 days after seeding | 7 days after seeding |
| HLF Hepatocellular carcinoma  Tight solid spheroids were formed and grown gradually                |                        |                                    |                      |                      |
| MIA-PaCa-2 Pancreas cancer cell (adenocarcinoma)  Clumps and loose soft spheroids were formed      |                        |                                    |                      |                      |
| MKN45 Gastric cancer cell (adenocarcinoma) Clumps and loose soft spheroids were formed             |                        |                                    |                      |                      |
| OVISE Ovary cancer cell (adenocarcinoma)  Due to its soft cell adhesion, clumps were formed partly |                        |                                    |                      |                      |