Electronic Supplementary Material (ESI) for Analyst.

Supplementary Information

Gel-based cell manipulation method for isolation and genotyping of single-adherent cells

Ryo Negishi,[a] Reito Iwata,[a] Tsuyoshi Tanaka,[a] David Kisailus,[b] Yoshiaki Maeda,[a] Tadashi Matsunaga,[a, c] and Tomoko Yoshino*[a]

[a]Division of Biotechnology and Life Science, Institute of Engineering, Tokyo University of Agriculture and Technology, 2-24-16, Naka-cho, Koganei, Tokyo, 184-8588, Japan

[b]Department of Chemical and Environmental Engineering, University of California, Riverside, Room 343 Materials Science and Engineering Building, Riverside, CA 92521, USA

[c] Waseda Research Institute for Science and Engineering, Waseda University, 3-4-1 Okubo, Shinjuku-ku, Tokyo, 169-8555, Japan

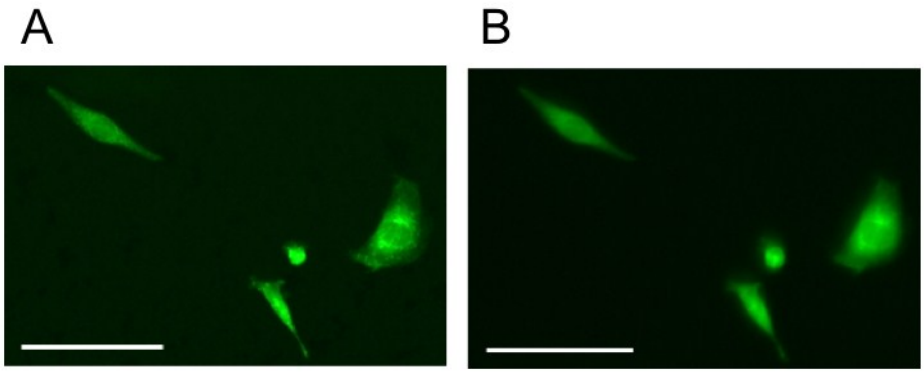

Fig. S1 Fluorescence image of CellTracker Green-stained NCI-H1975 cells.

A: Before trypsinization. B: After mild trypsinization (30 sec). Scale bar: 50 μm

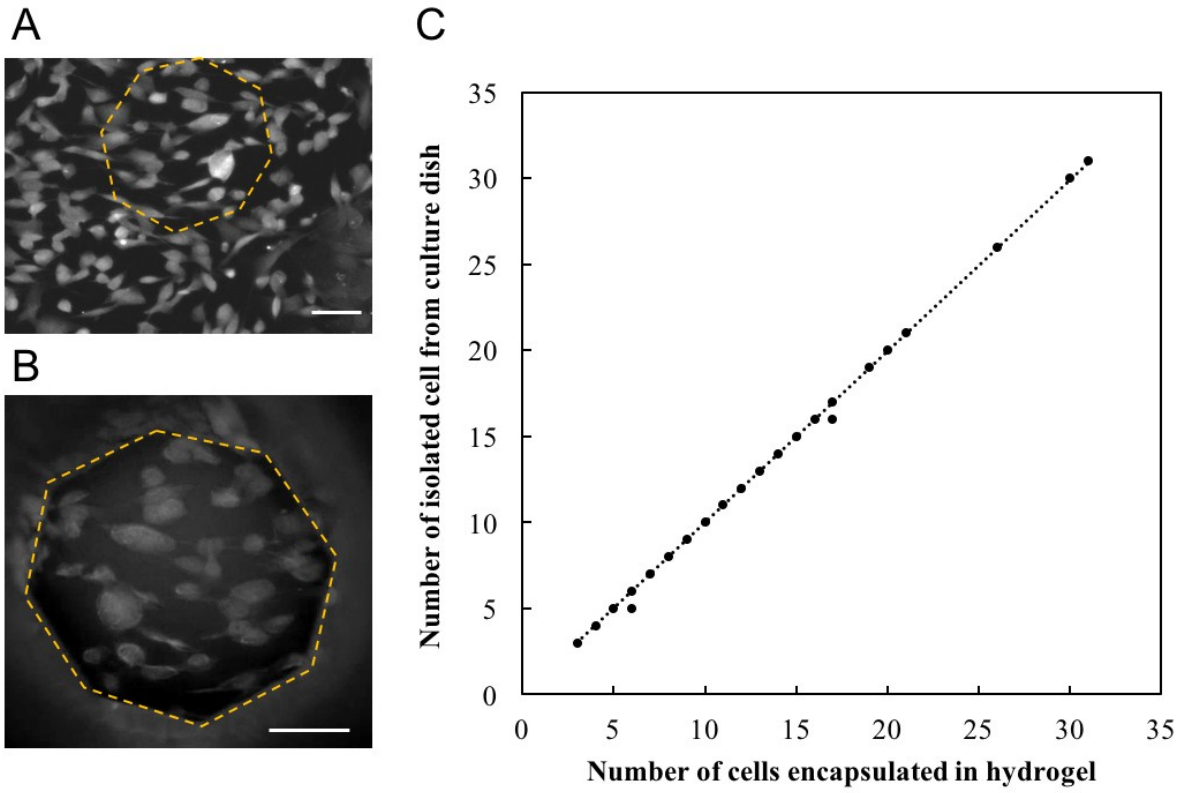

Fig. S2 Isolation of adherent cells from dense culture.

A: Fluorescence image of CellTracker Orange-stained NCI-H1975 cells adherent on a culture dish. Yellow dashed line shows hydrogel-encapsulation area. B: Fluorescence image of CellTracker Orange-stained NCI-H1975 cells encapsulated on a PEGDA hydrogel. Yellow dashed line shows the outline of the hydrogel. C: Relationship between the number of isolated cells and cells encapsulated on a single-PEGDA hydrogel. Scale bars: 100 μm

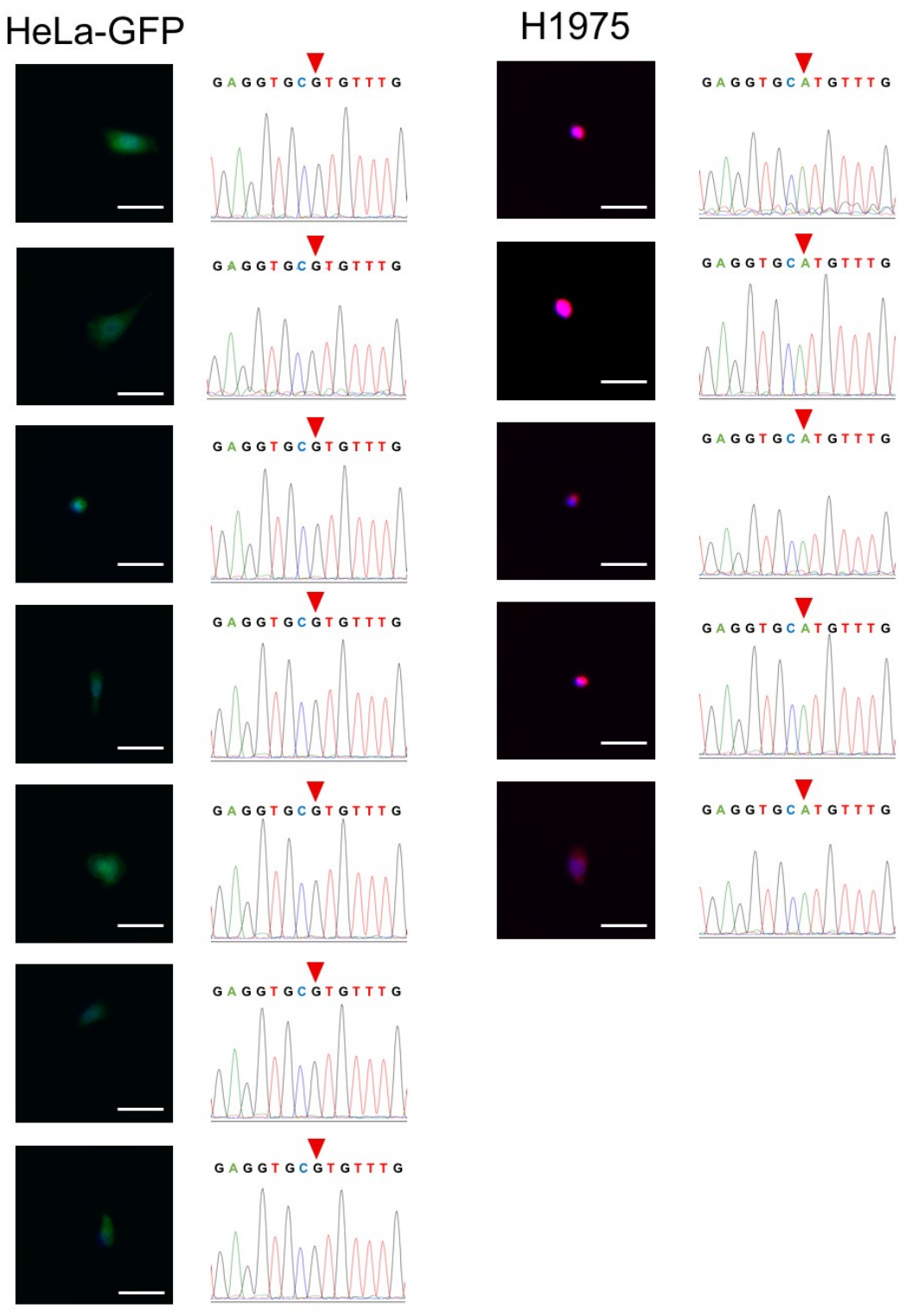

Fig. S3 Genotyping of a single-adherent cell.

Fluorescence images and sequences of the *TP53* gene in a single-HeLa-GFP and single-NCI-H1975 cell. Scale bars: 50 μm