What is Claimed:

1. A cell culture container comprising:

a plurality of first coated regions, on a culture surface of the cell culture container, coated by a temperature-responsive polymer or a temperature-responsive polymer composition,

wherein a surface zeta potential of the first coated regions is from 0 mV to 50 mV, and

wherein the temperature-responsive polymer contains cationic monomer units and anionic monomer units.

2. The cell culture container of claim 1, wherein a contact angle of water relative to the first coated regions is from 50° to 90°.

3. The cell culture container of claim 1 or 2, wherein the culture surface of the cell culture container is cell non-adhesive.

4. The cell culture container of any one of claims 1 to 3, wherein a shape of the first coated regions in planar view is at least one selected from the group consisting of a circle, an ellipse, and a shape with a center of curvature on an inside of an outer contour line.

5. The cell culture container of any one of claims 1 to 4, wherein the temperature-responsive polymer or temperature-responsive polymer composition is at least one temperature-responsive polymer or temperature-responsive polymer composition selected from the group consisting of a temperature-responsive polymer containing 2-N,N-dimethylaminoethyl methacrylate (DMAEMA) units and anionic monomer units; a temperature-responsive polymer containing N-isopropyl acrylamide (NIPAM) units, cationic monomer units, and anionic monomer units; and a temperature-responsive polymer composition containing a polymer of 2-N,N-dimethylaminoethyl methacrylate (DMAEMA) and/or a derivative thereof, 2-amino-2-hydroxymethyl-1,3-propanediol (tris), and one or more anionic substances selected from the group consisting of nucleic acids, heparin, hyaluronic acid, dextran sulfate, polystyrene sulfonic acid, polyacrylic acid, polymethacrylic acid, polyphosphoric acid, sulfated polysaccharide, curdlan, polyarginic acid, and alkali metal salts thereof.

6. The cell culture container of claim 5, wherein the anionic monomer is at least one selected from the group consisting of acrylic acid, methacrylic acid, vinyl derivatives containing at least one group selected from the group consisting of a carboxyl group, a sulfonic acid group, and a phosphoric acid group in a side chain.

7. The cell culture container of claim 5 or 6, wherein the cationic monomer is at least one selected from the group consisting of 3-(N,N-dimethylaminopropyl)-(meth)acrylamide, 3-(N,N-dimethylaminopropyl)-(meth)acrylate, aminostyrene, 2-(N,N-dimethylaminoethyl)-(meth)acrylamide, and 2-(N,N-dimethylaminoethyl)-(meth)acrylate.

8. The cell culture container of any one of claims 1 to 7, further comprising second coated regions further coated with a cell adhesive material, the second coated regions being located inside the first coated regions.

9. The cell culture container of claim 8, wherein the cell adhesive material is at least one selected from the group consisting of laminin, collagen, and fibronectin.

10. A cell culture container comprising:

a plurality of first coated regions, on a culture surface of the cell culture container, coated by a temperature-responsive polymer or a temperature-responsive polymer composition,

wherein a surface zeta potential of the first coated regions is from 0 mV to 50 mV, and

wherein the temperature-responsive polymer contains cationic monomer units.

11. The cell culture container of claim 10, wherein the cationic monomer units are 2-N,N-dimethylaminoethyl methacrylate (DMAEMA) units.