CLAIMS

1. A method for producing a pharmaceutical composition having exosomes containing miR-140, comprising

an exosomes obtaining step of obtaining the exosomes from auricular chondrocytes,

wherein the exosomes obtaining step comprises:

a culturing step of culturing auricular chondrocytes to obtain the cultured chondrocytes; and

an exosomes collecting step of collecting exosomes from the cultured chondrocytes cultured in the culturing step of the auricular chondrocytes,

wherein a culture medium for culturing auricular chondrocytes in the culturing step of the culturing auricular chondrocytes comprises estrogen.

2. The method for producing a pharmaceutical composition according to claim 1,

wherein the estrogen comprises estradiol.

3. The method for producing a pharmaceutical composition according to claim 1,

wherein the exosomes collecting step comprises a step of collecting exosomes from the cultured chondrocytes using monensin or a monensin salt.

4. The method for producing a pharmaceutical composition according to claim 1,

wherein the exosomes obtaining step comprises:

a culturing step of auricular chondrocytes of culturing auricular chondrocytes to obtain cultured chondrocytes;

an immortalization step of immortalizing the cultured chondrocytes cultured in the culturing step of auricular chondrocytes to obtain immortalized cells; and

an exosomes collecting step of collecting exosomes from the immortalized cells.

5. The method for producing a pharmaceutical composition according to claim 4,

wherein the immortalization step comprises a step of immortalizing the cultured chondrocytes using SV40 or hTERT to obtain immortalized cells.

6. The method for producing a pharmaceutical composition according to claim 4,

wherein the exosomes collecting step comprises a step of collecting exosomes from the immortalized cells using monensin or a monensin salt.