

CLAIMS

1. A cell differentiation state assessment method for assessing a state of differentiation of test cells based on an amount of kynurenine in a culture supernatant of the test cells, the test cells being pluripotent stem cells whose state of differentiation is unknown or cells obtained from pluripotent stem cells by differentiation induction, wherein:

the state of differentiation of the test cells is assessed by comparing the amount of kynurenine in a culture supernatant of the test cells and the amount of kynurenine in a culture supernatant of control cells which are pluripotent stem cells and whose state of differentiation is known.

2. The cell differentiation state assessment method according to claim 1, wherein pluripotent stem cells which are unmistakably differentiated are used as the control cells, and if a ratio of the amount of kynurenine in the supernatant of the test cells to the amount of the same compound in the supernatant of the control cells is equal to or higher than a predetermined threshold, it is concluded that the pluripotent stem cells whose state of differentiation is unknown are in an undifferentiated state or that undifferentiated cells are mixed in the cells obtained from the pluripotent stem cells by differentiation induction.

3. The cell differentiation state assessment method according to claim 1, wherein pluripotent stem cells which are unmistakably undifferentiated are used as the control cells, and if a ratio of the amount of kynurenine in the supernatant of the test cells to the amount of the same compound in the supernatant of the control cells is equal to or higher than a

predetermined threshold, it is concluded that the pluripotent stem cells whose state of differentiation is unknown are in an undifferentiated state or that undifferentiated cells are mixed in the cells obtained from the pluripotent stem cells by differentiation induction.

4. The cell differentiation state assessment method according to one of claims 1-3, wherein the amount of kynurenine in the culture supernatant is quantitatively determined by mass spectrometry.