

ABSTRACT

The present disclosure provides a method for determining the undifferentiated state of pluripotent stem cells, comprising: irradiating a test culture medium in which pluripotent stem cells are cultured with wavelength light having a wavelength in the range of 190 nm to 2,500 nm or a partial range thereof; detecting the reflected light, transmitted light or transmitted reflected light thereof to obtain absorbance spectrum data; and analyzing the absorbance at all or part of the measurement wavelengths in the absorbance spectrum data to determine the undifferentiated state of the pluripotent stem cells, based on an analytic model created in advance using a plurality of types of control culture media used to culture pluripotent stem cells, wherein the plurality of types of control culture media comprise: a medium used to maintain the undifferentiated state of the pluripotent stem cells; and at least one type of differentiation-inducing medium selected from the group consisting of a medium in which the differentiation into ectodermal cells is induced, a medium in which the differentiation into mesodermal cells is induced and a medium in which the differentiation into endodermal cells is induced.