

CELL CULTURE DEVICE, METHOD FOR CULTURING CELLS, AND METHOD FOR PRODUCING PRODUCT

ABSTRACT

There is provided a cell culture device including a culture vessel containing a cell suspension and a diaphragm pump for extracting the cell suspension from the culture vessel. In the cell culture device, a volume of a space defined by a diaphragm of the diaphragm pump and a plane F including a surface of an outer edge part of the diaphragm on a side far from an apex of the diaphragm is 1 cm^3 or more and 20 cm^3 or less, in a case where an angle formed by a straight line connecting a foot of a perpendicular line which is drawn from the apex of the diaphragm to the plane F to each point in the diaphragm and by the perpendicular line is denoted by an angle A at each point, a thickness H of the diaphragm is within a range of 0.5 mm or more and 1.5 mm or less at any point in a region where the angle A is from 0° to 75° , and in a case where a thickness of the diaphragm at the apex of the diaphragm is denoted by H_T , the thickness H of the diaphragm satisfies a relationship of $1 \leq H_T/H \leq 1.75$ at any point in the region where the angle A is from 0° to 75° . There is also provided a method for culturing cells using the cell culture device and a method for producing a product.

Fig. 2