

ABSTRACT

PARTICLE SEPARATION DEVICE

5 [Object] To provide a particle separation device which is easy to be operated and is able to appropriately separate particles.

[Solving Means] A particle separation device includes: a syringe 2; a barrel 41 into which a sample liquid S containing target particles is injected; a barrel 51 into which a buffer liquid B is injected; a branching tube 3 which includes a first conduit 31 connected to a discharge
10 port 21a of the syringe 2, a second conduit 32 corresponding to one of two branching from the first conduit 31 and connected to an injection port of the barrel 41, and a third conduit 33 corresponding to the other of two branching from the first conduit and connected to an injection port of the barrel 51; a first unidirectional valve 31a which is provided in the middle of the first conduit so as to prevent a backflow and is operated to be opened in a
15 positive pressure state on the side of the syringe and to be closed in a negative pressure state on the side of the syringe; and a DLD microchannel chip 6 which has a DLD microchannel structure.

FIG. 1