

ABSTRACT

The present disclosure relates to a collector, a cell sorting device, and a method for cell collection. The collector comprises: a housing which is internally provided with a mixing chamber and a loading chamber and which is provided with a filling hole in communication with the mixing chamber; a microfluidic chip arranged in the housing; and a collection vessel detachably connected to the housing. A target cell solution separated by the microfluidic chip can flow into the collection vessel. An inlet of the microfluidic chip, the loading chamber, and the collection vessel are selectively in communication with the mixing chamber through a communicating structure, respectively. After the microfluidic chip discharges the target cell solution separated for a first time into the collection vessel, the collection vessel is in communication with the mixing chamber through the communicating structure, and a negative pressure is inputted into the mixing chamber through the filling hole, such that the target cell solution in the collection vessel is sucked into the mixing chamber. Afterwards, the microfluidic chip is in communication with the mixing chamber through the communicating structure, and a positive pressure is inputted into the mixing chamber through the filling hole, such that the target cell solution in the mixing chamber is pressurized into the microfluidic chip. In this way, secondary separation is achieved through the microfluidic chip.

Fig. 1