

ABSTRACT

SEPARATION DEVICE AND METHOD FOR SEPARATING TARGET PARTICLES IN LIQUID SAMPLES

An isolation device for isolation of target particles from a plurality of liquid samples includes a plurality of isolation chips and a vacuum system. Each of the plurality of isolation chips includes a sample reservoir, and a first outlet and a second outlet disposed at opposite sides of the sample reservoir. The vacuum system includes a first vacuum pump connected to the first outlet of each of the plurality of isolation chips and a second vacuum pump connected to the second outlet of each of the plurality of isolation chips. The first vacuum pump generates a negative pressure in each of the plurality of isolation chips through a corresponding first outlet. The second vacuum pump generates a negative pressure in each of the plurality of isolation chips through a corresponding second outlet. The target particles are isolated from each of the plurality of liquid samples in a corresponding sample reservoir. The present disclosure further provides a method for isolation of target particles from a plurality of liquid samples using the isolation device.

Figure 1