ABSTRACT

MICROFLUIDIC DETECTION CHIP FOR MULTI-CHANNEL RAPID DETECTION

Disclosed is a microfluidic detection chip for multi-channel rapid detection, comprising a chip body. A chip sampling port, a plurality of independent detection chambers, and a microfluidic channel are disposed on the chip body, and the chip sampling port is communicated with the detection chambers by means of the microfluidic channel. The chip body further comprises an electrode; the detection chambers are connected to the electrode; the microfluidic channel comprises a main flow channel and a plurality of branch microfluidic channels, a tail end of the main flow channel is divided into the plurality of branch microfluidic channels, and the plurality of branch microfluidic channels are communicated with the plurality of independent detection chambers in a one-to-one correspondence manner; and the other end of the main flow channel is communicated with the chip sampling port. By designing a main flow channel and a plurality of branch microfluidic channels in a specific structural form to guide the flow of blood samples, one sample chamber can simultaneously inject samples into a plurality of reaction chambers without contaminating the samples, and it is easy to inject samples, so that the plurality of samples can be simultaneously detected, and the multi-channel effect is achieved. The chip is simple in structure and convenient in operation, thereby improving the detection efficiency, greatly reducing the consumption of resources, and lowering the cost.

(FIG. 8)