

**TITLE OF INVENTION: [POLYPEPTIDE COMPOSITION ANALYSIS METHOD
BASED ON COPPER ION MODIFIED MSPA NANOPORES]**

ABSTRACT

Provided a polypeptide composition analysis method based on M2MspA-N91H nanopores, comprising the following steps: S1 Mixing an exopeptidase with a polypeptide to be tested uniformly and reacting to obtain a hydrolysis product; S2 Adding the hydrolysis product to a nanopore system, wherein the nanopore system comprises an M2MspA-N91H nanopore, an insulating membrane, a first medium, and a second medium, wherein the M2MspA-N91H nanopore is embedded in the insulating membrane, the M2MspA-N91H nanopore provides a channel that connects the first medium and the second medium, and the hydrolysis product is added to the first medium; S3 Applying a driving force between the first medium and the second medium, a free amino acid in the hydrolysis product passes through the M2MspA-N91H nanopore and generates an electrical signal; S4 Data-analyzing the electrical signal to obtain information on amino acid type of the free amino acid.

[Fig. 10]