试题原文

注：请大家先按照搜索式阅读解题法做完题目，再看下面的讲解视频。

xMAP® Technology allows users to perform a wide range of protein-and nucleic acid-based multiplex assays, which can simultaneously detect up to 500 targets in a single run.

Key Advantages of xMAP Technology:

●Test for more biomarkers.

●Develop custom assays.

●Use less sample.

●Save time and reagents.

●Gain a better understanding of complex biological systems.

●Order from thousands of predesigned kits from our Partners.

What is multiplexing? Multiplexing is a method for high-volume biomarker testing—or testing multiple analytes simultaneously within a single run—using a single sample volume. xMAP Technology is best-suited for testing 3–500 targets.

How does xMAP Technology work? xMAP Technology uses labeled microspheres or beads, allowing for the simultaneous capture of multiple analytes from a single reaction. Because of their small size and low density, xMAP microsphere-based assays exhibit virtual solution-phase kinetics during the reaction. The beads are individually read using an xMAP instrument.

What does xMAP mean? Multi-Analyte Profiling, where the "x" represents the biomarkers (such as proteins, nucleic acids, or polysaccharides) that are being tested.

xMAP Beads

xMAP beads come in a variety of formats, including magnetic (MagPlex) and non-magnetic (MicroPlex) beads.

xMAP® beads pass through a red laser, or LED, which excites the internal dyes to distinguish the microsphere set. Then, a green laser or LED excites the fluorescent reporter dye to determine the result of the assay.

xMAP® Applications

xMAP in Action

Explore xMAP® Technology and discover some of the many applications used by multiplexing research experts across the globe:

xMAP Assay Automation： Automation can boost productivity, minimize errors, and save on reagents.

Immunogenicity: By using xMAP Technology, researchers can consolidate multiple assays into one for more efficient immune response studies.

Bead-Based Multiplexing vs. Electrochemiluminescence: Bead-based multiplexing offers significantly higher plex capacity, requires less hands-on time, and delivers superior results compared to traditional methods.

Generate more data while saving sample, time, and reagents

xMAP® beads come in a variety of formats. The MagPlex® Microspheres—6.5 micron superparamagnetic beads that are dyed with three red and infrared fluorescent dyes, resulting in 500 distinctly colored bead sets—are our most versatile and efficient microspheres for high-plex applications. Approximately 108 surface carboxyl groups (COOH) cover the surface of the bead and serve as covalent attachments for capture ligands. A fluorescent reporter is coupled to a target molecule, which allows its detection after specific capture on the microsphere surface.

60. According to the passage, what is xMAP?

A. A mind map.

B. A test method.

C. A navigation map.

D. An application.

61. All of the following are advantages of xMAP, except____.

A. developing custom analysis

B. forming a network structure

C. generating more data

D. saving samples and reagents

62. Which of the following options is correct?

A. The xMAP beads distinguish groups of microspheres by a blue laser.

B. xMAP allows for the capture of a single analyte from multiple reactions.

C. xMAP technology is used more in the experimental phase.

D. The "x" in xMAP represents the biomarkers being tested.

视频讲解