Aluminium Coated Glass Slide Microarray Devices, Related Method, and Method of Manufacture

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智財權狀態

美國臨時案已申請、美國8,680,020 B2已獲證、PCT已申請、日本5986745已獲證、歐盟EP 2 318 832 B1已獲證、PCT已申請、美國10,274,488 B2已獲證、日本放棄申請、日本6475673已獲證

摘要

The invention relates to a novel method to immobilize glycans onto aluminum coated glass (ACG) slides for potential use in disease diagnosis and drug discovery. The quality of sugar chips can be assessed by mass spectrometry and fluorescence measurement with high sensitivity. To demonstrate this, we have synthesized a model compound of mannose with a built-in photoclevable linker bound to the ACG slide surface. The molecular weight of the grafted mannose was identified by mass spectroscopy. The slide was subjected bind biotinylated ConA binding, followed by Cy3-tagged streptavidin detectoin. We have observed that the immobilized mannose gave higher fluorescence signal intensity than that on glass slides in protein binding assay. In addition, there is a proportional relationship between the peak intensity of the mass of grafted sugar and the fluorescence intensity of the Cy3-tagged sugar binding protein.

技術優勢

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應用範圍

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