

Detection of Biotin and Streptavidin Interaction Using Polydiacetylene Vesicles on the Glass Chip

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Abstract

Polydiacetylene (PDA) has been attracting great interest in the biosensor fields because of its unique chromatic property. The PDA-based colorimetric biosensors have been either vesicles in aqueous solutions or thin films on solid supports and incorporated a variety of ligands for detection of biological interactions.¹⁾ An amine-terminated PDA-NH₂ was prepared²⁾ and then conjugated with photoreactivable biotin by UV illuminator. The synthesized PDA-biotin was reacted with streptavidin which resulted in colorimetric transition. It is expected that this method can be used to detect biomolecular interaction without labeling.

References

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