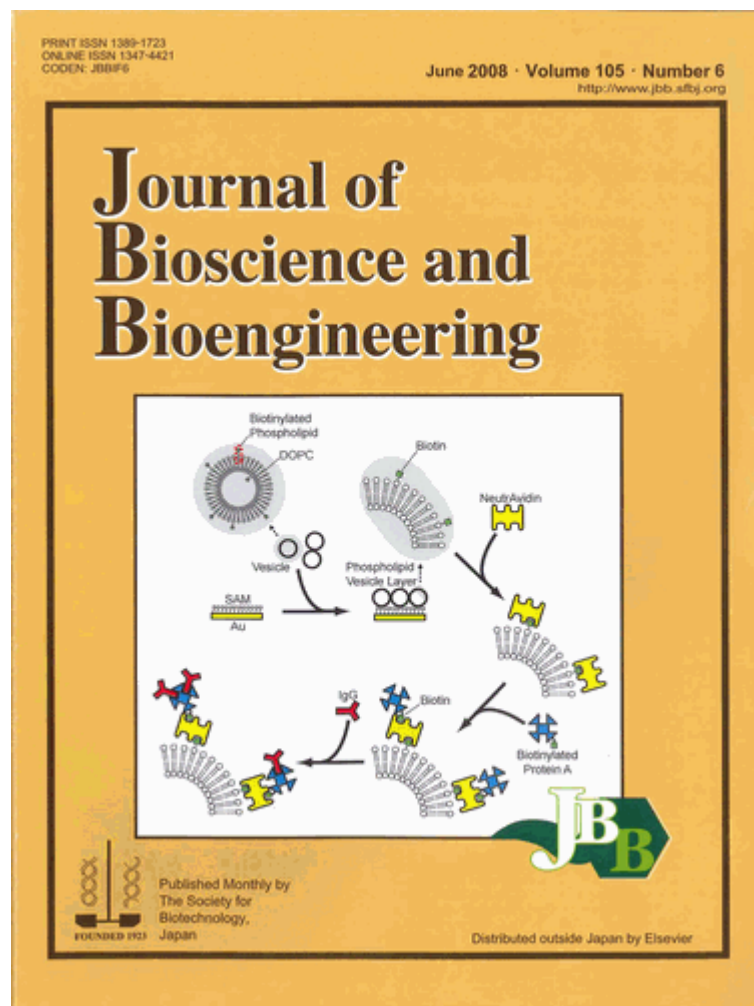


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A biotin-containing phospholipid vesicle layer is used for surface resonance plasmon (SPR) biosensing.

When a suspension of vesicle composed of 1,2-dioleoyl-*sn*-glycero-3-phosphocholine (DOPC) and a biotinylated phospholipid is applied on a self-assembled monolayer (SAM) deposited on a gold-coated SPR sensor chip, the layer of the phospholipid vesicle (phospholipid vesicle layer) forms on the surface.

The vesicle layer can immobilize a biotinylated protein A through the biotin-avidin-biotin linkage. Furthermore, immunoglobulin G (IgG) can bind to the protein A immobilized on the vesicle layer. Because these reactions are designed to take place on the gold surface, the protein immobilization based on the biotin-containing phospholipid vesicle layer is a useful technique for SPR biosensing.

Related article: Ishizuka-Katsura, Y., Wazawa, T., Ban, T., Morigaki, K., and Aoyama, S. J., "Biotin-containing phospholipid vesicle layer formed on self-assembled monolayer of a saccharide-terminated alkyl disulfide for surface plasmon resonance biosensing", *J. Biosci. Bioeng.*, Volume 105, Issue 5, Pages 527-535 (2008).

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