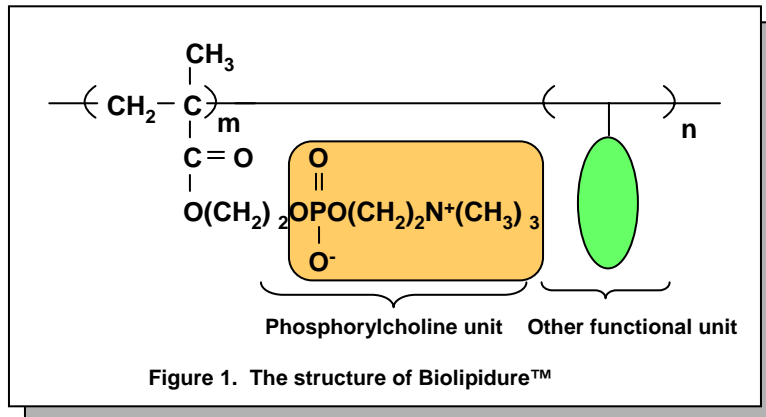


Biolipidure™ - Prime Alternative to BSA

— Synthetic polymer —



Biolipidure™



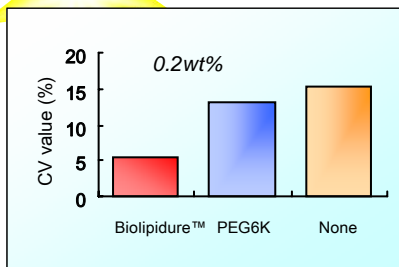
- Features -

- No danger of biohazards
- No difference in lots
- Suppression of non-specific adsorption
- Stabilization of immobilized antibody
- Stabilization of enzyme-antibody conjugate
- Enhancement of aggregation reaction
- Enhancement of enzyme-substrate reaction
- Enhancement of accuracy

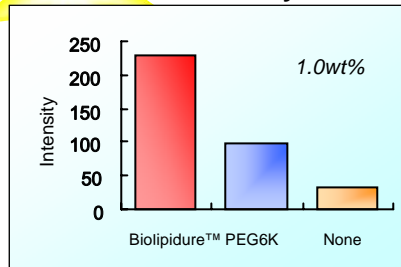
Reduction of CV value ([standard deviation] / [average] x 100)

- Improvement of particle dispersiveness

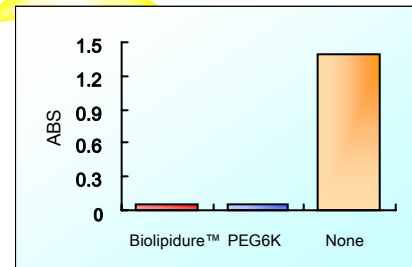
Reduction of CV value



Improvement of sensitivity in turbidimetric assay



Suppression of non-specific adsorption



- General Usage -

- Can be supplied as 5 wt% aqueous solution

Do not use Biolipidure™ directly, because it is not a buffer solution.

- Can be used in ELISA, Western Blotting, Immuno-histochemistry.
- Dilute with a buffer solution.

It is recommended that the conc. of Biolipidure is used as 1.0 wt% - 0.01 wt%.

- Store at 4 ° C.

Name	Property ¹⁾	Blocker	Stabilizer	Enhancer	Vol.
Biolipidure-103	Amphoteric	–	Good	Very Good	10 mL
Biolipidure-203	Amphoteric	Good	Good	Very Good	10 mL
Biolipidure-206	Amphoteric	Very Good	Very Good	Good	10 mL
Biolipidure-405	Anionic	–	–	Very Good	10 mL
Biolipidure-502	Cationic	–	–	Good	10 mL
Biolipidure-702	Amphoteric	–	–	Good	10 mL
Biolipidure-802	Amphoteric	Very Good	Very Good	–	10 mL
Biolipidure-1002	Amphoteric	Very Good	Good	Good	10 mL
Biolipidure-1201	Amphoteric	Good	–	–	10 mL
Biolipidure-1301	Amphoteric	Good	–	–	10 mL
Set of all Biolipidure					1 set

Note

1) Hydrophilicity :103 > 405, 502, 702 > 203, 802, 1201, 1301 > 206, 1002

Blocking

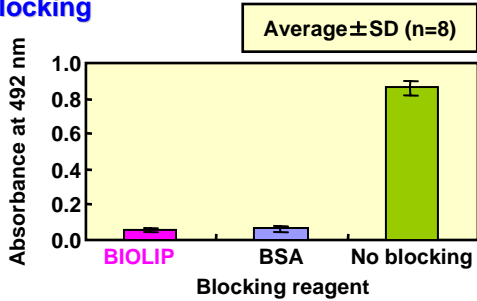


Figure 2. The amount of non-specific adsorbed HRP-IgG conjugate.

Solid phase: 96-well plate (Maxisorp F96, Nunc)
 Immobilized antibody: anti (mouse IgG)IgG
 Antigen: non
 Enzyme-IgG conjugate: HRP-Anti (mouse IgG) IgG conjugate
 Substrate: o-phenylenediamine dihydrochloride
 Detection: 492 nm

Experimental conditions:

- Immobilization of anti (mouse IgG)IgG
- Blocking by 0.1% (1 mg/mL) BIOLIPIDURE and 1 mg/mL BSA
- Dispensation of HRP-Anti (mouse IgG) IgG conjugate
- Dispensation of o-phenylenediamine dihydrochloride
- Measurement of absorbance at 492 nm

Stabilization of immobilized antibody

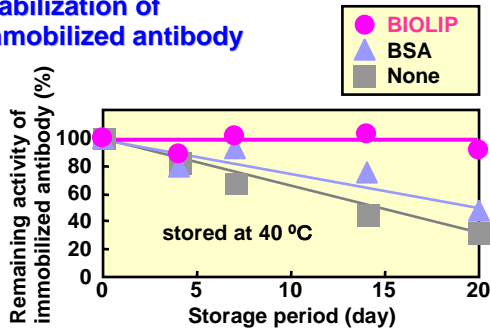


Figure 3. Remaining activities of immobilized antibody that was stored at 40 °C

Solid phase: 96-well plate (Maxisorp F96, Nunc)
 Immobilized antibody: anti (mouse IgG)IgG
 Antigen: mouse IgG
 Enzyme-IgG conjugate: HRP-Anti (mouse IgG) IgG conjugate
 Substrate: o-phenylenediamine dihydrochloride
 Detection: 492 nm

Experimental conditions:

- Immobilization of anti (mouse IgG)IgG
- Blocking by 0.1% BIOLIPIDURE and 0.1 % BSA
- Storage at 40 °C : 0, 4, 7, 14 and 20 day
- Dispensation of mouse IgG
- Dispensation of HRP-Anti (mouse IgG) IgG conjugate
- Dispensation of o-phenylenediamine dihydrochloride
- Measurement of absorbance at 492 nm

Stabilization of HRP-IgG conjugate

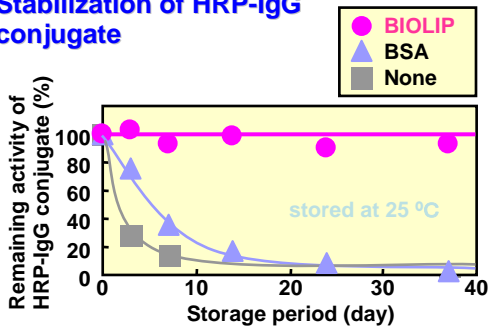


Figure 4. Remaining activities of HRP-IgG conjugate that was stored at 25 °C

Solid phase: 96-well plate (Maxisorp F96, Nunc)
 Immobilized antibody: anti (mouse IgG)IgG
 Antigen: mouse IgG
 Enzyme-IgG conjugate: HRP-Anti (mouse IgG) IgG conjugate
 Substrate: o-phenylenediamine dihydrochloride
 Detection: 492 nm

Experimental conditions:

- Preparation of plate (immobilized antibody and reacted antigen)
- Dispensation of 1 % BIOLIPIDURE and BSA into HRP-IgG conjugate
- Storage at 25 °C: 0, 3, 7, 14, 24 and 37 day
- Dispensation of HRP-Anti (mouse IgG) IgG
- Dispensation of o-phenylenediamine dihydrochloride
- Measurement of absorbance at 492 nm

Enhancement of agglutination reaction

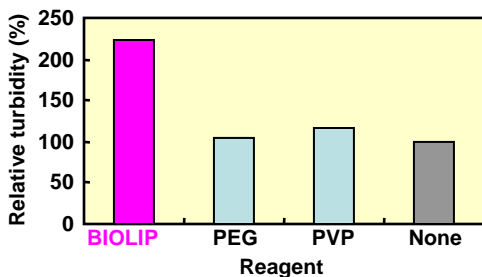


Figure 5. Enhancement of latex aggregation

Analysis: 0.8 mg/dL CRP using 7070 Auto Analyzer (HITACH)
 Measurement: latex turbidly immunoassay

Experimental conditions:

- Dispensation of 1% BIOLIPIDURE, PEG and PVP into R1 reagent

PEG: polyethylene glycol (Mw = 6,000)
 PVP: polyvinylpyrrolidone (Mw = 40,000)

Biolipidure™ for Immunochromatography

- Biolipidure™ features -

- No danger of biohazards and no difference in lots
- Improvement of stability, accuracy, reproducibility and sensitivity.
- Can be supplied as 5 wt% aqueous solution

- Usage of Biolipidure™ as a mobile phase -

- #1 Prepare the buffer solution including one wt% of Biolipidure.
- #2 Dissolve the sample (For example; mucosa) in the above buffer.
- #3 Put the diluted sample on the solid phase of immunochromatography.

- Usage of Biolipidure™ as a solid phase -

- #1 Prepare the solution of antibodies-conjugated gold colloids.
- #2 Draw the line using the colloids solution on the solid phase of immunochromatography.
- #3 Soak the solid phase in the buffer solution including one wt% of Biolipidure.
- #4 Pick up the solid phase and dry it. You can get the solid phase blocked by Biolipidure.

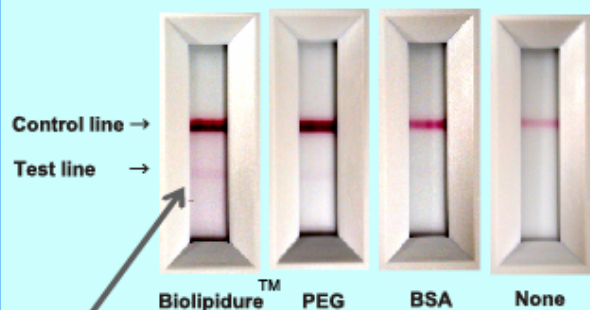
Effect of Biolipidure for immunochromatography

Effect of Biolipidure

	Blocking	Stability	Enhancer
103	—	✓	✓ ✓
405	—	—	✓ ✓
802	✓ ✓	✓	—

[Enhancer]

Test kit : hCG detection kit
Sample : 0.1mL of 5 IU/mL 1% additive solution



Sensitivity improvement

* Biolipidure-405 is acidic so you need to control the pH of your product.