

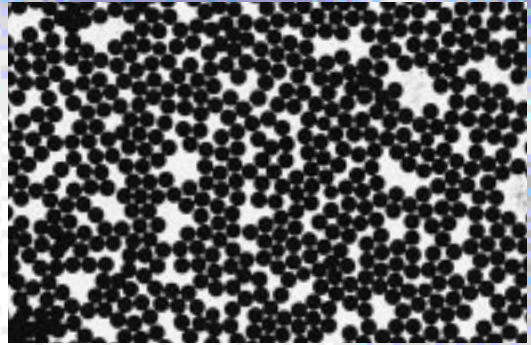
SEKISUI LATEX for IMMUNO-DIAGNOSTIC REAGENTS

Sekisui has developed by applying its refined polymer technology, a “genuine soap-free latex” of polystyrene family, which does not contain any surfactants. SEKISUI SOAP-FREE LATEX has the advantages of stable dispersion, storage stability, uniform diameter and production lot reproducibility.



1 Characteristics of SEKISUI LATEX for immuno-diagnostic reagents

- 1) It is a genuine soap free latex made by the unique polymerization technology that does not employ surfactants.
- 2) Centrifugal force, dialysis or dilution will seldom cause agglutination of particles, due to the fact that the particles are dispersed in a stable state by themselves without the help of surfactants.
- 3) It does not contain ingredients such as surfactants that may be a hindrance in the manufacture or to the quality of diagnostic reagents. There is no need for eliminating such ingredients prior to use.
- 4) The emulsion consists of singly and homogeneously dispersed particles.
- 5) Particles will not agglutinate or precipitate during normal storage and assure good storage stability.
- 6) It is manufactured under a severe quality control system and shows very little fluctuation of quality from lot to lot.



Electronmicrograph of SEKISUI LATEX Reagents

- 7) It is made by Sekisui's unique polymerization technique that enables close control of surface charge density. Particles of various adsorption characteristics are available for every specific application.
- 8) Latex particles are also available in a wide range of diameters.
- 9) There are both physical adsorption type and covalent coupling type available.

2 Grades of SEKISUI LATEX

- 1) Physical Adsorption Type
This is a general purpose polystyrene latex that efficiently adsorb proteins such as antibody or antigen by a force attributed to the mutual hydrophobic property. There are two grades, General Purpose Grade and High Sensitivity Grade.

General Purpose Grade

- This is the standard latex that is used for a wide range of applications of physical adsorption.
- The particle diameter range is 0.05µm to 1.0µm.

High Sensitivity Grade

- This is suitable for highly sensitive diagnostic products.
- It enables to make diagnostic reagents that require smaller quantity of antibody/antigen and yet have the same level of reliability as those made of the general purpose latex.

- 2) Covalent Coupling Type

This is a polystyrene latex of which the surface of the particles are modified to have carboxyl group. Carbodiimide method or other well-known chemical methods can be used to make covalent bond with proteins such as antibody, antigen, or hapten.

3) Coloured Type

Coloured type is a carboxyl-modified polystyrene latex that is coloured by a unique technology of Sekisui. There is very

little chance of fading during storage or after being used for reagents. Two colours, red and blue are available.

Type of Latex	Physical Adsorption Type	Covalent Coupling Type	Coloured Type
Polymer	Polystyrene	Carboxyl-modified Polystyrene	Carboxyl-modified Polystyrene
Grades	General Purpose Grade High Sensitivity Grade		Blue Red
Range of Particle Size (μm)	0.05 to 1.0	0.1 to 0.4	0.1 to 0.4
Solid Content (%)	10	10	1

3

Application to immuno-diagnostic reagents

The latex can be used in any immuno-diagnostic reagents that are made of latex.

Typical immunoassays are :

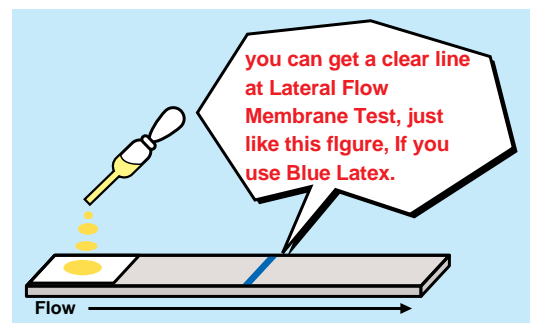
1) Slide Agglutination Assay



2) Turbidimetric and Nephelometric Assay



3) Lateral Flow Membrane Migration Assay



SEKISUI SOAP-FREE LATEX functions very well when used in turbidimetric and nephelometric assays.

4 Antiseptics

A trace amount of an azide compound is added to prevent propagation of microorganisms.

5 Instructions for storage

- 1) Store in a dark, cool place at 10 °C or below, but never allow to freeze.
- 2) Close the container tightly using the attached cap, to avoid vaporization.
- 3) Relatively large particle latex may sometimes give sedimentation during storage but the quality will not be affected. If sedimentation occurs, shake well with a touch mixer, etc., before using it.

6 Packages

- 10 mL plastic bottle,
- 50 mL plastic bottle,
- 500 mL plastic bottle (Some grades only).

SALES OFFICE

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