

Opti-Bind/Opti-Link Polymer Particles

Optimize immunoassay development

- Can be used directly from the bottle without any pre-washing for most applications for convenience and ease-of-use
- Proprietary anionic surfactant does not interfere with the binding of proteins, nor causes proteins to desorb from particle surfaces
- Variety of surface chemistries, which accommodates a wide range of coupling strategies
- Prepared without common surfactants (SDS, Tween 20, Triton X-100, etc.) that can interfere with protein binding to particle surface

From clinical immunoassays and molecular biology sample preparation to research applications, Thermo Scientific™ Opti-Bind™ sulfate and Opti-Link™ carboxylate-modified particles are critical components for many of the world's leading diagnostic and molecular biology companies.

Typical applications include latex slide agglutination assays, suspension array tests, turbidimetric tests, and nephelometric assays.

Contact us for our worksheet designed to help you select the best experimental parameters (buffer, activator, protein, bead concentration, etc.) when using these chemistries and to request our Particle Technology Technical Notes & Reference Guide.



Opti-Bind

Opti-Bind particles are available in a wide range of diameters from 0.1 μm to 2.5 μm and are optimized for maximum reactivity in turbidimetric assays and many other diagnostic applications. The sulfate surface is very hydrophobic and adsorbs proteins almost instantaneously.

Opti-Link

Opti-Link carboxylate-modified particles contain carboxylic acid groups for covalent coupling and are available from 0.04 μm to 5.0 μm in size. The various acid content available within the Opti-Link product line enables control of sensitivity, specificity, and stability. Parking area combines surface area and acid content to provide the surface acid distribution that is useful for assay optimization.

Covalent coupling requires the use of activation chemistries: EDAC for direct coupling or active ester with EDAC/NHS for indirect coupling. Non-covalent adsorption of proteins to the bead surface occurs almost instantaneously while covalent interactions follow the initial adsorption.

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Opti-Bind Sulfate and Opti-Link Carboxylate Modified Particles

Opti-Bind

Nominal Diameter	Bottle Size	Surface Area Loading/Post Process	Catalog Number	Nominal Diameter	Bottle Size	Surface Area Loading/Post Process	Catalog Number
0.1 µm	15 mL	Low SO ₄ /Pasteurized	8100-0397-100290	0.60 µm	15 mL	Low SO ₄ /Pasteurized	9100-1397-100290
0.1 µm	100 mL	Low SO ₄ /Pasteurized	8100-0397-100390	0.60 µm	100 mL	Low SO ₄ /Pasteurized	9100-1397-100390
0.2 µm	15 mL	Low SO ₄ /Pasteurized	8100-0597-100290	0.85 µm	15 mL	Low SO ₄ /Pasteurized	9100-1897-100290
0.2 µm	100 mL	Low SO ₄ /Pasteurized	8100-0597-100390	0.85 µm	100 mL	Low SO ₄ /Pasteurized	9100-1897-100390
0.3 µm	15 mL	Low SO ₄ /Pasteurized	8100-0797-100290	1.25 µm	15 mL	Low SO ₄ /Pasteurized	7100-2697-100250
0.3 µm	100 mL	Low SO ₄ /Pasteurized	8100-0797-100390	1.25 µm	100 mL	Low SO ₄ /Pasteurized	7100-2697-100350
0.4 µm	15 mL	Low SO ₄ /Pasteurized	8100-0997-100290	2.50 µm	15 mL	Low SO ₄ /0.05% Azide	7100-3497-100250
0.4 µm	100 mL	Low SO ₄ /Pasteurized	8100-0997-100390	2.50 µm	100 mL	Low SO ₄ /0.05% Azide	7100-3497-100350

Opti-Link

Nominal Diameter	Bottle Size	Surface Area Loading/Post Process	Catalog Number	Nominal Diameter	Bottle Size	Surface Area Loading/Post Process	Catalog Number
0.04 µm	15 mL	Low Acid/Azide	W004CA	0.50 µm	15 mL	Medium Acid/Azide	W050CA
0.04 µm	100 mL	Low Acid/Azide	W004CB	0.50 µm	100 mL	Medium Acid/Azide	W050CB
0.20 µm	15 mL	Low Acid/Pasteurized	9300-0570-100290	0.85 µm	15 mL	Medium Acid/Azide	W080CA
0.20 µm	100 mL	Low Acid/Pasteurized	9300-0570-100390	0.85 µm	100 mL	Medium Acid/Azide	W080CB
0.20 µm	15 mL	Med. Acid/Pasteurized	8300-0550-100290	0.85 µm	15 mL	Low Acid/Pasteurized	9300-1891-100290
0.20 µm	100 mL	Med. Acid/Pasteurized	8300-0550-100390	0.85 µm	100 mL	Low Acid/Pasteurized	9300-1891-100390
0.20 µm	15 mL	High Acid/Pasteurized	8300-0520-100290	0.90 µm	15 mL	High Acid/Azide	W090CA
0.20 µm	100 mL	High Acid/Pasteurized	8300-0520-100390	0.90 µm	100 mL	High Acid/Azide	W090CB
0.30 µm	15 mL	Med. Acid/Pasteurized	8300-0750-100290	2.00 µm	15 mL	PA5, High Acid	7300-3305-100250
0.30 µm	100 mL	Med. Acid/Pasteurized	8300-0750-100390	2.00 µm	100 mL	PA5, High Acid	7300-3305-100350
0.30 µm	15 mL	High Acid/Pasteurized	8300-0720-100290	3.00 µm	15 mL	PA20, High Acid	7300-3420-100250
0.30 µm	100 mL	High Acid/Pasteurized	8300-0720-100390	3.00 µm	100 mL	PA20, High Acid	7300-3420-100350
0.40 µm	15 mL	Low Acid/Pasteurized	8300-0970-100290	4.00 µm	15 mL	High Acid/Azide	W400CA
0.40 µm	100 mL	Low Acid/Pasteurized	8300-0970-100390	4.00 µm	100 mL	High Acid/Azide	W400CB
0.40 µm	15 mL	High Acid/Pasteurized	8300-0920-100290	5.00 µm	15 mL	High Acid/Azide	W500CA
0.40 µm	100 mL	High Acid/Pasteurized	8300-0920-100390	5.00 µm	100 mL	High Acid/Azide	W500CB

Specifications

Composition	Polystyrene
% Solids	4% (azide), 10% (pasteurized)
Additives	0.05% Sodium Azide
Tight size distribution	CV < 2%
Documentation	Package Insert Sheet containing Certificate of Analysis, Material Safety Data Sheet (MSDS) available upon request.
Storage and Handling	Refrigerate the product (2-8°C) when not in use and prevent from freezing. Store upright and keep bottle tightly sealed. Mix product with gentle inversion by hand or vortex mixer.

Note: Refer to tables above to see which particles have a low, medium or high surface area with either sodium azide or pasteurized post process.

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