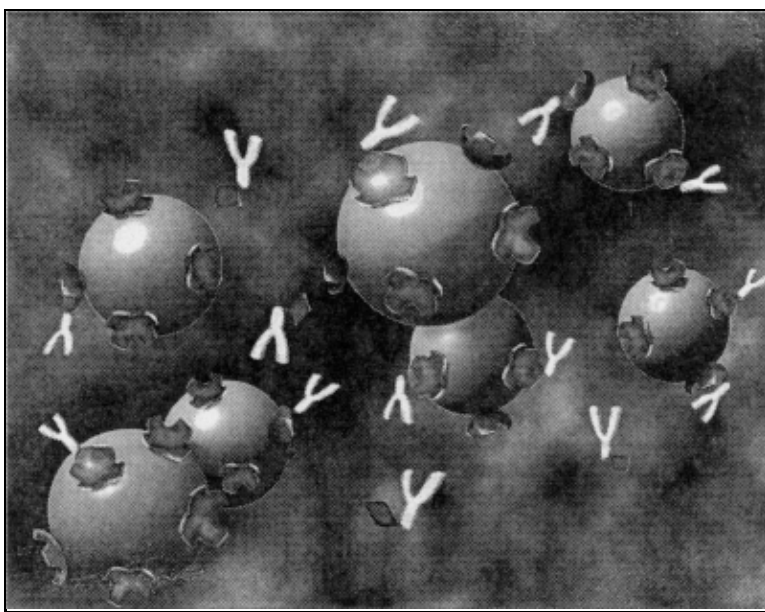


Tech. Note # 51

ProActive®
PROTEIN COATED MICROSPHERES

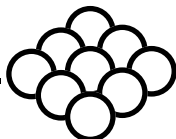
Our new ***ProActive®*** protein coated microspheres are getting rave reviews from customers doing immunoassays, molecular biology and cell work. These generic solid phases dramatically simplify binding to beads, continuing our tradition of supplying only the best microspheres available in the world.

We are very proud of the binding capacity and temperature stability of our streptavidin-coated microspheres. Now available on both superparamagnetic (for easy magnetic separation) and non-magnetic microspheres, ***ProActive®*** **Streptavidin** binds the biotinylated ligand of your choice, (antibody, DNA probe, other binding proteins) quickly and with high affinity.



Protein A-coated microspheres specifically bind certain IgGs at the Fc portion of the antibody, resulting in higher activity due to correct orientation. This coating is also available on both magnetic and non-magnetic microspheres. Although we currently offer ***ProActive®*** **Protein A** microspheres, it is not your only choice of IgG binding protein. We can, on a custom basis, coat the microspheres of your choice with native proteins A or G, recombinant forms of proteins A or G (these have deleted albumin binding sequences for reduced non-specific binding), or even with recombinant fusion protein A/G. If you're not sure which protein to use, ask us!

Goat anti-mouse IgG bound to microspheres picks up mouse IgG and orients it so that the Fab portions are available. By using a second antibody system, you can use less



primary antibody but get higher activity. Currently available on our superparamagnetic microspheres, we will soon add **ProActive® GAM** polymeric microspheres. Please contact us with your other second antibody preferences.

We are convinced that you'll be pleased with the performance of our new **ProActive®** products! See the the attachment for a complete listing of currently available **ProActive®** products. As always...if the material that you want is not on the list, *ask us!*

APPLICATIONS

Some of the more common applications of protein coated microspheres include:

Affinity Chromatography

Multi-Purpose Solid Phase for Immunoassays

- Streptavidin coated microsphere / biotinylated ligand
- Protein A/G coated microsphere / Fc portion of target antibody
- Second antibody (goat anti-mouse) / First antibody (mouse anti-?)
- Your preferred protein

Nucleic Acid Hybridization

Immunoselective Cell Separation

DNA Isolation and Solid Phase Sequencing

If we don't currently have the product that best fits your needs, please give us the opportunity to custom coat the most appropriate microspheres with the protein of your choice.

mm-3/97

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12/4/97

ProActive[®] PROTEIN COATED MICROSPHERES

Stock Number	Nominal Mean Diameter (μm)	Polymer Description†	% Mag.	Color	Density ³ (g/cm)	Product Class	Price Sch.
N/A							
• C0005070JB	0.50	Protein A Coated	§	Primary Blue	1.060	Rsch	K
Superparamagnetic							
• C0007700XN	0.77	Biotin Coated Magnetic	§ 40%		1.541	Rsch	K
• C0007703JN	0.77	Protein A Coated Magnetic	§ 40%		1.541	Rsch	K
• C0007704JN	0.77	Protein A Coated Magnetic	§ 40%		1.541	Rsch	K
• C0008306RN	0.83	Streptavidin Coated Magnetic	§ 66%		2.206	Rsch	K
• C0008307RN	0.83	Streptavidin Coated Magnetic	§ 66%		2.206	Rsch	K
• C0008308RN	0.83	Streptavidin Coated Magnetic	§ 66%		2.206	Rsch	K
Polymeric (non-magnetic)							
• C0000300RN	0.03	Streptavidin Coated	§		1.060	Rsch	K
• C0001172RB	0.12	Streptavidin Coated	§	Blue	1.060	Rsch	K
• C0001901RN	0.19	Streptavidin Coated	§		1.060	Rsch	K
• C0002992JR	0.29	Protein A Coated	§	Red	1.060	Rsch	K
• C0003501RB	0.35	Streptavidin Coated	§	Dark Blue	1.060	Rsch	K
• C0005070RF	0.50	P(S/V-COOH)•(460,500)	§	Fl. Yellow	1.060	Rsch	K
• C0006000JN	0.60	Protein A Coated	§		1.060	Rsch	K
• C0008200RB	0.82	Streptavidin Coated	§	Blue	1.060	Rsch	K
• C0008570RN	0.86	Streptavidin Coated	§		1.060	Rsch	K
• C0008570RR	0.85	Streptavidin Coated	§	Red	1.060	Rsch	K
• C0008572RF	0.86	P(S/V-COOH)•(635,655)	§	Fl. Blue	1.060	Rsch	K
• C0009310RN	0.93	Streptavidin Coated	§		1.060	Rsch	K
• C0010090JN	1.00	Protein A Coated	§		1.060	Rsch	K
• C0010090RN	1.00	Streptavidin Coated	§		1.060	Rsch	K
• C0020001RN	2.00	Streptavidin Coated	§		1.060	Rsch	K
• C0020003RN	2.00	Streptavidin Coated	§		1.060	Rsch	K
• C0020005RN	2.00	Streptavidin Coated	§		1.060	Rsch	K
• C0020010RN	2.00	Streptavidin Coated	§		1.060	Rsch	K
• C0035001RN	3.50	Streptavidin Coated	§		1.060	Rsch	K
• C0104000RN	10.40	Streptavidin Coated	§		1.060	Rsch	K
• C0184502RN	18.45	Streptavidin Coated	§		1.062	Rsch	K

• Immediate Stock Availability

†See Legend and Price Schedule

Abbreviation Legend

11/13/97

Polymer or Abbreviation	Meaning
A	Acrylic polymer, unspecified
AA	Acrylic Acid
Ar	Aromatic (benzene-ring linked)
B	Butadiene
BMA	ButylMethAcrylate
BrS	BromoStyrene
CH ₂ -Cl	Chloromethyl group
CH ₂ -OH	Alcohol (hydroxyl group)
CHO	Aldehyde group
CONH ₂	Amide group or monomer
COOH	Carboxylic Acid Group
COOH/1	COOH/Type 1: S/AA copolymer
COOH/2	COOH/Type 2: S/MA copolymer
COOH/4	COOH/Type 4: Type 1 + spacer arm
COOH/5	COOH/Type 5: copolymer with spacer arm ~10Å
DVB	DiVinylBenzene
EDA	EthyleneDiAmine
EDMA	EthyleneDiMethAcrylate
EMA	EthylMethAcrylate
Fl.	Fluorescent
GMA	GlycidylMethAcrylate
MA	Maleic Anhydride
MAA	MethAcrylic Acid
Mag.	Magnetite - Fe ₃ O ₄
MMA	MethylMethAcrylate
MS	MethylStyrene
NHNH ₂	Hydrazide group
P()	Poly(copolymer)
PMMA	PolyMethylMethAcrylate
pMS	paraMethylStyrene
PS	PolyStyrene
PVAc	PolyVinylAcetate
PVT	PolyVinylToluene
R	Aliphatic
Rsch	Research material
S	Styrene
SO ₃	Sulfonic acid groups
Std	Standard Material - replicate lots available.
V	Vinyl, unspecified polymerizable group
VBC	VinylBenzylChloride
VdCl	Vinylidene Chloride
VT	VinylToluene
XL	Cross-linked
___%	percentage of magnetite or monomer used
§	Anti microbial present (Sodium Azide or Merthiolate)
•	Before Stock no.= Immediate availability