# CD Bioparticles Launches Affinity Chromatography Resins for Laboratory Usage

*CD Bioparticles has launched a range of Affinity Chromatography Resins for research applications.*

SHIRLEY, NEW YORK, UNITED STATES, April 26, 2023 /EINPresswire.com/ -- With years of experience in the pharmaceutical and life science sectors, CD Bioparticles has launched a range of 10-100 μm diameter Affinity Chromatography Resins to meet customer needs for biopharmaceuticals, natural products and downstream purification of biologics using polymethyl methacrylate (PMMA) and agarose.

These affinity chromatography resins utilize world-leading microspheres as a matrix with precise material composition, particle size, particle size uniformity, pore size and surface properties. In addition, the monodisperse microspheres exhibit consistent diameter, pore channel, surface properties and chromatographic peak shape, showing good chemical stability at low counterpressures and more dynamic adsorption load even at high flow rates.

Currently, affinity chromatography media on the market are divided into two major categories, i.e., polysaccharide-based (agarose, dextran, cellulose) and synthetic polymer-based (polyacrylate, acrylamide). For this new portfolio, CD Bioparticles offers microspheres with two materials, PMMA and agarose, to meet customers' needs in laboratory preparation, pilot testing and industrial production.

Porous PMMA affinity chromatography particles contain a rigid monodisperse porous PMMA microsphere as a core, which ensures better mechanical properties of the medium, is more pressure resistant and supports a higher and more stable column bed. Moreover, the polyhydroxyl structure of dextran provides good hydrophilicity and reduced non-specific adsorption, while the polyhydroxyl group allows more Protein A binding sites for higher loading capacity and improved antibody batches. Meanwhile, agarose affinity chromatography particles possess a reticulated structure in the dissolved state with a large specific surface area and relatively high affinity loading.

Applications

In vitro antigen-antibody reactions.
Enzyme assays, substrate detection, and enzyme binding site studies.
Detection of single nucleotide polymorphisms and mutations in nucleic acids.

Separation of compound mixtures, and removal of impurities.
Isolation and purification of nucleic acids and proteins from cell extracts.

CD Bioparticles provides various functional ligands, including N(CH2COOH)2, N(CH2COOH)3, Ni2+, Phenylboronic acid, Protein A, and rProtein A. For example, DiagNano™ rProtein A Porous Agarose Particles (90 μm) are monodisperse porous agarose particles with terminal rProtein A groups on their surface. They are widely used in continuous flow purification of antibodies because of their high mechanical strength, good compression resistance, stable column bed and fast mass transfer.

Another example is DiagNano™ rProtein A Porous PMMA Particles, High Capacity, 50 μm. They have demonstrated high mechanical strength, low back pressure, good chemical stability and high alkali resistance with higher capacity than PPD-71, making them suitable for the isolation and purification of monoclonal antibodies and recombinant protein biomolecules containing Fc (functional chromatography) fragments.

For more information about affinity chromatography resins or to discuss your projects, please visit CD Bioparticles at https://www.cd-bioparticles.com/.

About CD Bioparticles

CD Bioparticles is a leading manufacturer and supplier of various nanoparticles, microparticles, and coatings for R&D as well as commercialization across different application areas, including in vitro diagnostics, biochemistry, cellular analysis, cell separation, and immunoassay. The company also offers various custom services, including chemical surface-functionalization, fluorescent modification, antibody immobilization, as well as nucleic acid and oligo conjugation to meet client specifications.

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