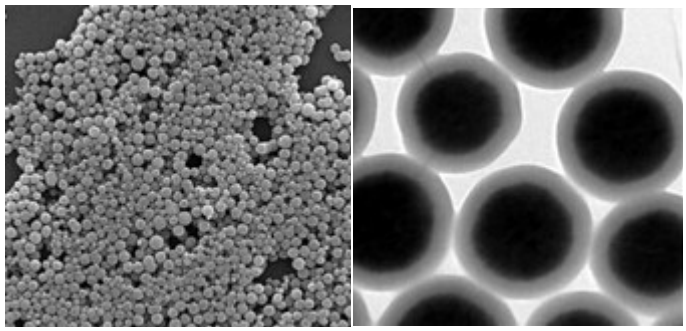
InterBioTech

Carboxyl Magnetic Beads

Brand	Product Name	Code No.	Particle Size	Functional Groups	Core	Shell	Solvent	Recommended Buffers
Interchim-MagCOOH	Carboxyl functionalized magnetic silica beads	AXF9TA	200nm	-COOH	Fe3O4	SiO2	DI Water	PBS, Tris-HCl and H2O
		AXF9UA	500nm					
		AXF9VA	1um					
		AXF9WA	3um					
		AXF9XA	5um					
		AXF9YA	10um					
	Carboxyl functionalized magnetic polystyrene beads	AXF9LA	200nm	-COOH	Polymer/ Fe3O4	Polymer	DI Water	PBS, Tris-HCl and H2O
		AXF9MA	500nm					
		AXF9PA	1um					
		AXF9QA	3um					
		AXF9RA	5um					
		AXF9SA	10um					

Storage & Shelf Life: Store at 4-8°C. Do not freeze or dry into powder (12 months)

Features



- Narrow particle size distribution
- High reproducibility
- Good biocompatibility
- Superparamagnetic and high magnetic response (Saturation magnetization is greater than 40emu/g), saving operation time.
- Good dispersion and resuspend, suitable for automattion
- Great target binding capacity, low non-specific adsorption: dedicated to the special nucleic acid isolation and protein purification.

Applications

Carboxyl functionalized magnetic silica beads	Carboxyl functionalized magnetic polystyrene beads
• Nucleic acid separation • Enzyme fixation • Catalyst carrier • Separation and purification of small molecules	• Nucleic acid separation • Immunoassay • Cell separation • Affinity chromatography and purification • Protein Purification • Biological sensor • Drug screening and delivery

Description

Carboxyl Magnetic Beads are superparamagnetic beads with high carboxyl content on the surface thus can bind to polypeptides, antibodies or other proteins, oligonucleotides and certain chemical compounds with certain chemical reagent (such as EDC). They are widely used as an important carrier of the medical and molecular biology research tools.

Interchim supplies two types of carboxyl treated magnetic microspheres :

1. Carboxyl functionalized magnetic silica beads

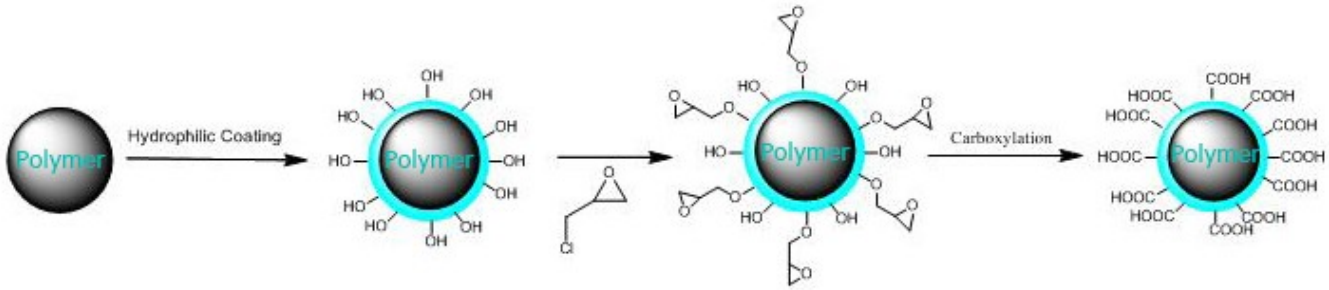
2. Carboxyl treated magnetic polystyrene microspheres. Our carboxylized magnetic microspheres have higher magnetic response, lower nonspecific adsorption and richer binding sites with activated groups of carboxyl on the surface, which can easily and efficiently combine with a variety of ligands such as protein, polypeptide, oligomeric nucleotide and drug molecues, especially for batch separation and purification.

① Carboxyl functionalized magnetic silica beads

Carboxyl functionalized magnetic silica beads have the same structure as silica coated magnetic beads. It is also with typical core shell structure. The core is superparamagnetic Fe3O4 nanoparticles which is coated with silica layer as shell. Carboxyl groups are from surface modification of amino treated magnetic silica microspheres. Besides carboxyl groups, there are still some –SiOH groups left on the surface. Therefore, carboxyl functionalized magnetic silica microspheres are not suitable for separation and purification of protein as well as other biomacromolecule. It can be widely used to:

1. Nucleic acid separation
2. Enzyme fixation
3. Catalyst carrier
4. Separation and purification of small molecules

② Carboxyl functionalized magnetic polystyrene beads



The structure of carboxyl treated magnetic polystyrene microspheres is typically sandwich type. The inner core is monodisperse polymer microspheres. Magnetic oxide layer is in the middle between uniform polymer microspheres and the outermost layer which is hydrophilic and hydroxyl functionalized polymer layer. By carboxylation, hydroxyl groups convert to carboxyl groups.

Through cross-linking reagents (such as EDC etc.), amino treated magnetic polystyrene microspheres are able to covalently coupled with protein ligands (such as antigen, antibody, etc.), oligonucleotide probes and other biomolecules on the surface,which makes amino treated magnetic polystyrene microspheres an important carrier in medical and molecular biology research.

It can be widely used as below:

1. Nucleic acid separation
2. Immunoassay
3. Cell separation
4. Affinity chromatography and purification

Related Products

- EDC, 52005C

Ordering information

Catalog size quantities and prices may be found at http://www.interchim.com.
Please inquire for higher quantities (availability, shipment conditions).

Please contact InterBioTech – Interchim for any other information
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