

UptiBeads, Bioactive Magnetic microspheres

Product Description

Streptavidin magnetic beads.

Specificity	Diameter (µm)	Binding capacity mg Biotinylated IgG / g Particules	Catalog Number	
			1.5 ml	10 ml
Streptavidin	0.3 µm	3 - 4 mg	UPR09030	UPR09031
	1 µm	2 - 3 mg	UPR09020	UPR09021

- Beads :** Monodisperse Magnetic polystyrene microspheres of 0.3 or 1 µm diameter
- Ligand :** Streptavidine from *Streptomyces*.
- Packaging :** 1 % (10 mg beads / ml) suspension in PBS pH7.4 with preservatives.
- Storage :** +4°C. **Do not freeze.**
Stability 2 years if stored properly

Scientific and Technical Information

- **UptiBeads** are super-paramagnetics encapsulated particules with diameter of 0.31 µm and 1 µm. They are supplied in 1% suspension (10mg of beads / ml of buffer).

Diameter (µm)	% ferrite	Density (g/cm ³)	surface particulaire area (cm ²)	Number of particules (nb/ml)
0.31 µm	40%	1.54	3.0 x 10 ⁻⁹	4.2 x x 10 ¹¹
1.0 µm	55%	1.54	3.1 x 10 ⁻⁸	1.6 x 10 ¹⁰

Production process provide a high active surface area per unit of mass, and a total colloidal stability. Hence, the fact they are monodisperse allows accurate separations at rapid kinetics under a magnetic field of 0.1 to 1 Tesla. Aggregation should not occur under normal conditions of use (a technical notice for aggregation concerns is available)

- Uptibeads are stable in the range of pH from 2 – 12. However to long time below pH4.0 could damage the beads. Beads are sonication compatible.
Uptibeads are package in a physiological buffer and are ready to use. In case of use with peroxidase they must be washed.

Direction for Use

Protocole for purification

This protocole is suggested to purify biological fluid. It may be to optimize the protocole according to the sample. Calculate the quantity of beads according her binding capacity and the sample.

1. Homogenize well the vial before use. Wash once in PBS pH7.4 to discard preservative, stabilizer. Resuspend Uptibeads in 0.5 mg/ml of PBS.
2. Filtrate the sample on 0.45µm.
3. Fixation of biotinylated IgG :
Mix the beads and the biotinylated IgG . Incubate under gentle agitation at room temperature for 30 min.
4. Washing :
Add 10 volumes of PBS and incubate 1 min. Discard the supernatant by a magnet or a centrifugation gently. Repeat twice again.
5. Resuspend Uptibeads coated with biotinylated in 0.5 – 1 mg/ml of PBS 0.1M pH7.4
6. Immunopurification of antigen :
Mix the beads and the sample. Incubate under gentle agitation at room temperature for 30 min. Wash three times
7. Elution :
Elute with a minimal volume of 0.1 M citric acid pH 3.0 (to avoid to dilute a lot the fraction). Incubate 1-2 minutes. Use a magnet or centrifuge gently. The eluted fraction are neutralised rapidly with Neutralizing Buffer (#UPR99543) nor 1M Tris pH9.0
8. Resuspend the Uptibeads in PBS pH7.4 and store at +4°C.

Other Information

UptiBeads are also available :

-with other polymers (silica, cellulose..)

-non functionalized, with chemical groups (NH₂, CH₂NH₂, ArNH₂, COOH, OH, SO₃H, N+(CH₃)₃, CONH₂, COOCH₃, CH₂Cl, SO₄>H), or coated with other bioactive molecules (streptavidin, carbohydrates...)

-with other diameters (de 15nm à 6µm)

Contact us for accessories (magnets)