

## MAGNETIC SEPARATION REAGENTS

For several magnetic separation protocols, it is desirable to be able to track and quantify the iron oxide colloidal reagent. For these applications, BioPAL has developed Trackable **BioMagic**<sup>™</sup>. Trackable **BioMagic** is a standard magnetic iron oxide particle that is laced with europium. As a result, researchers can track and quantify the fate of the particles under different experimental conditions either by time resolved fluorescent technology (TRF) or by neutron activation (NA).

Like **TorrentDOTS**<sup>™</sup>, the europium contained in the magnetic iron oxide particle does not contain a TRF antenna. As a result, researchers planning to use TFR readout systems will need to purchase BioPAL's releasing reagent. This reagent is formulated to both (1) breakdown the iron oxide colloidal core and then (2) individually chelate an antenna onto the released europium atoms. The degree of sensitivity and quantification achievable by TFR is dependent on many factors outside the control of BioPAL, such as the limitation of the customer's readout equipment and variation in sample preparation, i.e., sample size, density, viscosity, temperature, etc. As a result, customers must evaluate these parameters. Alternatively, BioPAL offers neutron activation analysis of samples-of-interest as an out-source service, i.e., customers send samples to BioPAL for analysis. Neutron activation provides a sensitive and quantitative measurement that is matrix independent. Trackable **BioMagic** has patent pending status.

### Trackable Magnetic Particles

Amine-terminated Trackable **BioMagic** consists of a suspension of magnetic iron oxide particles laced with europium and coated to provide primary amine groups. The amine groups allow for the covalent attachment of proteins or ligands with retention of biological activity. The stoichiometry of the amine functional groups is about 240 µmol/g.

#### Catalog Number

M-01QK10	Trackable <b>BioMagic</b> - Amino-terminated (10 ml) .....	\$ 190.00
	1.5 µm amine-terminated, europium laced magnetic iron oxide particles and are packaged in a 10 ml sealed serum bottle (50 mg/ml) suspended in distilled water/EDTA solution.	
M-01QK100	Trackable <b>BioMagic</b> - Amino-terminated (100 ml).....	\$ 780.00
	1.5 µm amine-terminated, europium laced magnetic iron oxide particles and are packaged in a 100 ml sealed serum bottle (50 mg/ml) suspended in distilled water/EDTA solution.	

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Trackable **BioMagic** immobilization kit consists of a suspension of amine-terminated, europium laced magnetic iron oxide particles, 25% solution of high purity glutaraldehyde, and instructions. To minimize the cost, reusable items, such as a reaction flask or a magnetic field separator, are not included in the kit.

M-01QK1K	Trackable <b>BioMagic</b> – Magnetic Immobilization Kit.....	\$ 375.00
	10 ml sealed serum bottle of amine-terminated, europium laced magnetic iron oxide particles and a 5 ml sealed serum bottle of EM grade glutaraldehyde (25% solution).	

### BioPAL's Releasing Reagent

BioPAL offers its releasing reagent for Trackable **BioMagic**, europium-based product-line. This reagent is formulated for europium. Other TRF labels, such as terbium, are under development. Different lanthanide isotopes may require different formulations of the releasing reagent.

R-1001-10	Europium Releasing Reagent – Trackable <b>BioMagic</b> .....	\$ 50.00
	10ml packaged in a 10 ml sealed serum bottle.	

