

ULTRASMALL MIXED FERRITE IRON OXIDE (USMIO) CONTRAST AGENTS

Molday USMIO Rhodamine B™ is an ultrasmall mixed ferrite iron oxide-based superparamagnetic contrast reagent having a colloidal size of 50 nm. The core crystal is europium-doped magnetite surrounded by a cross-linked dextran to which a fluorescent dye, rhodamine B, is attached through a C6 amino group. As a result, this reagent can be visualized by both MRI and by fluorescence, and can be quantified by neutron activation *via* BioPAL's short enhanced assay service. For MRI, this reagent is classified as a darkening agent acting through the T2 relaxation process. For fluorescence, the rhodamine B label excitation wavelength is 555 nm and the emission is at 565-620nm.

Molday USMIO Rhodamine B has additional unreacted amino groups that can be used to attach a targeting ligand or can be used to ionically bind to the negative charged cell surface to facilitate cellular uptake of the reagent. In addition to rhodamine B, alternative fluorescent dyes can be conjugated to the parent USMIO and we are pleased to discuss alternative conjugations to the parent USMIO.

NOT FOR HUMAN USE.

Fluorescent Magnetite MRI Contrast Agent

Catalog Number

CL-50KQ02-6A-50	Molday USMIO Rhodamine B	\$ 450.00
	2.0 ml of 50 nm rhodamine B mixed ferrite iron oxide contrast agent packaged in a 2 ml sealed serum bottle. 2.5 mg Fe/ml. Applications: MRI, EM, Fluorescent detection, Neutron activation, Magnetic cell-sorting.	

REF: *Bioconjugate Chemistry*, 2007:18;1763-1771.

