

56nm Samarium Time-Resolved Fluorescent Microspheres

Cat. NO.	Diameter	Description	Surface	Modifier	Luminescent Substance	Solid content (W/V)	Unit Size
SMFN0056	56nm	PS Particles, Samarium Chelate	PS(-COOH)	/	Sm3+	1%	1 mL, 5 mL, 10 mL

Description

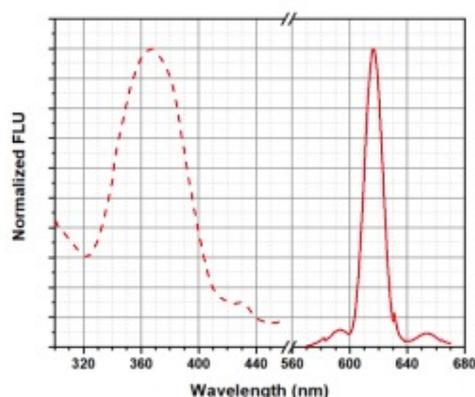
Time-resolved fluorescent microspheres are obtained by staining carboxyl polystyrene microspheres with rare earth lanthanide chelate samarium. The internal dyeing can effectively avoid the leakage of dyes and maintain the immunoreactivity of the surface of the microspheres. Rare earth lanthanide chelates have longer fluorescence lifetimes and longer Stokes shifts than other fluorophores. Therefore, by delaying the measurement time during measurement, it helps to avoid non-specific fluorescence interference and improve detection sensitivity.

Our highly-fluorescent samarium (III) nanoparticles are functionalized with carboxyl groups (COOH) and applied in lateral flow, diagnostic assay, nucleic acid hybridization, molecular biology, Immunohistology, Point-of-Care (POC) and time-resolved fluorescent research.

Characteristics

Material	Polystyrene (PS)
Size Range	56–316 nm
Pore structure	Non-porous
Dyeing method	Internal filling
Percentage by weight	1.0% w/v
Suspension Solution	Pure water (with 0.05% w/v Proclin® 300)

Fluorophores



Fluorescence	Excitation (nm)	Emission(nm)
Red	365	610

Product Stability, Storage and Specifications

This product should be stored at 2-8°C. Do not freeze! Protect from light.

Product Use

Sonicate/Vortex the microspheres before each use.

Related Product

Cat. NO.	Surface	Modifier	Nominal Diameter	Luminescent Substance
EUFN0056	PS(-COOH)	/	56 nm	Eu ³⁺
EUFN0092	PS(-COOH)	/	92 nm	Eu ³⁺
EUFN0155	PS(-COOH)	/	155 nm	Eu ³⁺
EUFN0210	PS(-COOH)	/	210 nm	Eu ³⁺
EUFN6210	PS(-COOH)	6 atom straight chain arm	210 nm	Eu ³⁺
EUFN2210	PS(-COOH)	200 atom straight chain arm	210 nm	Eu ³⁺
EUFN1210	PS(-COOH)	1000 atom straight chain arm	210 nm	Eu ³⁺
EUFNS210	PS(-SA)	Avidin	210 nm	Eu ³⁺
EUFN0316	PS(-COOH)	/	316 nm	Eu ³⁺
SMFN0056	PS(-COOH)	/	56 nm	Sm ³⁺



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