Scintillation
Nanotechnologies

SNT

aquaSCINT–IC™ Solid Scintillator Nanoparticles

Product Description

aquaSCINT–IC™ is a proprietary nanoparticle scintillator that presents several advantages over traditional liquid scintillation cocktails and solid scintillation materials. aquaSCINT–IC™ can be used directly with mammalian cell lines for a range of non–selective radioisotope measurements. aquaSCINT–IC™ is small, has an intermediate density compared to polymer or inorganic crystal scintillators, and is readily dispersed in water compared to inorganic particles which settle and organic particles which can aggregate.

Variations

aquaSCINT–IC™ is available in two colors, a broad emission centered at approximately 430 nm (Blue), suitable for most PMT–based scintillation counters, and an emission maximum of 615 nm (Red), suitable for CCD–based instruments. The product vial is labeled according to maximum emission wavelength.

Storage

aquaSCINT–IC™ is shipped in water at 10 mg/mL. Store aquaSCINTTM in the refrigerator (4 °C) or at room temperature (approximately 25 °C).

Support

Please contact info@sntnano.com or call 1.833.768.6266, extension 1 for product support.

General Guidelines

• The function of aquaSCINT–IC™ has not been tested after freezing or heating to temperatures above 37 °C.

• aquaSCINT–IC™ is not compatible with many organic solvents including acetone, ethyl acetate, toluene, benzene, dimethylsulfoxide, and acetonitrile.

• aquaSCINT–IC™ is a polymer–based scintillator and will yield lower total counts per unit of radioactivity in most experiments than scintillation cocktail or inorganic crystal–based scintillators. However, the signal generated by aquaSCINT–IC™ will be directly proportional to radioactivity in the sample.

• Based on the results of limited testing, the scintillation efficiency of aquaSCINT–IC™ does not appear to be affected by pH from 3.0 to 9.5, or salt concentration up to 100 mM sodium chloride.

• aquaSCINT–IC™ is shipped in water, but the water can be replaced by an aqueous buffer of choice. Collect the aquaSCINT–IC™ particles by centrifuging the aquaSCINT–IC™ slurry at approximately 10,000 × g, then disperse the particles in the chosen buffer.

• Mix the aquaSCINT–IC™ slurry by shaking the vial immediately before use.

• aquaSCINT–IC™ slurry can be added directly to aqueous samples. Thoroughly mix the aquaSCINT–IC™ and sample by gently aspirating the sample with a pipette or swirling the vial if the sample contains protein or other component that may cause foam to form, or by shaking if no such agent is present.

• aquaSCINT–IC™ can be used in scintillation vials or multi–well plates.

• Light emission from aquaSCINT–IC™ can be measured in existing liquid scintillation counter instrumentation.

• aquaSCINT–IC™ show uptake by several adherent mammalian cells lines and could potentially be used to monitor the uptake of radiolabeled analytes. Cells can be incubated with 10–100 μg/mL aquaSCINT–IC™ dispersed in a compatible buffer or low–serum cell growth medium for 4 to 12 hours. Excess aquaSCINT–IC™ can be rinsed from the cells to decrease background signal.

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