



Technical Data Sheet

ACS Material PEG-COOH Modified Upconverting Nanoparticles

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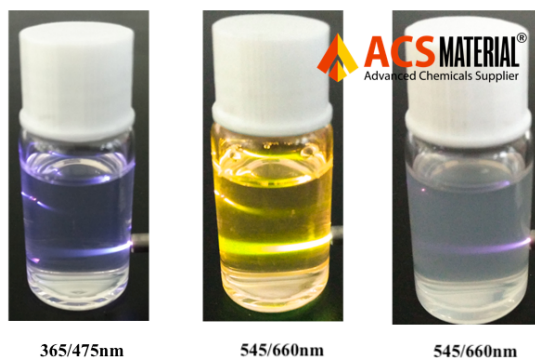
1. Characterizations

Composition	PEG-COOH Modified Upconverting Nanoparticles	
Diameter	35 nm	
Appearance	Ivory white solution or Clear*	
Crystal formula	NaYREF ₄ (RE: Yb, Er, Tm, Gd, Mn, Lu) @PEG-COOH	
Concentration	5 mg/mL~10 mg/mL*	
Solvent	Water	
Dispersity of powder	Water or aqueous medium	
Excitation wavelength	975 nm	
Sensitizer	Ytterbium (Yb ³⁺)	
Activator	Emission wavelength	Fluorescence
Thulium (Tm ³⁺)	365/475 nm	Blue
Erbium (Er ³⁺)	545/660 nm	Green-Yellow
Thulium (Tm ³⁺)	804 nm	Near-infrared

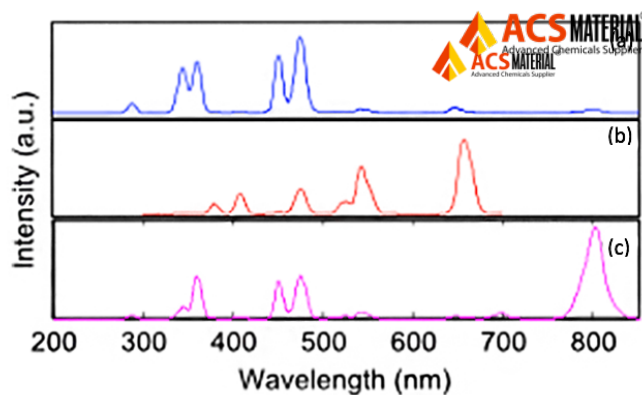
*The concentration and product color will vary per batch.

Storage: Sealed, stored at 4-8°C.

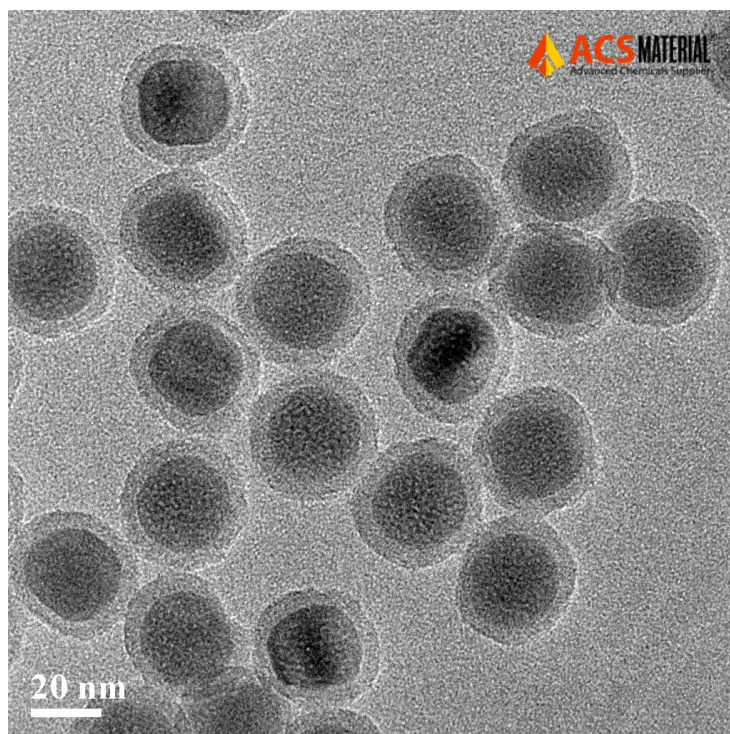
Shelf life: ~6 months



Fluorescence Image of ACS Material PEG-COOH Modified Upconverting Nanoparticles,
Excitation at 975 nm (reference only)



Upconversion Emission Spectra: a) 365/475nm, b) 545/660 nm, c) 804 nm of ACS Material PEG-COOH Modified Upconverting Nanoparticles, Excitation at 975 nm for reference only



TEM Image of ACS Material PEG-COOH Modified Upconverting Nanoparticles

3. Application Fields

For scientific research only. Not to be used for any animal or human diagnostic/therapeutic purposes.

- ◆ Fluorescence imaging.
- ◆ Biodetection.
- ◆ Photodynamic therapy.
- ◆ Photoactivation of anti-cancer drugs and biomolecules *etc.*

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