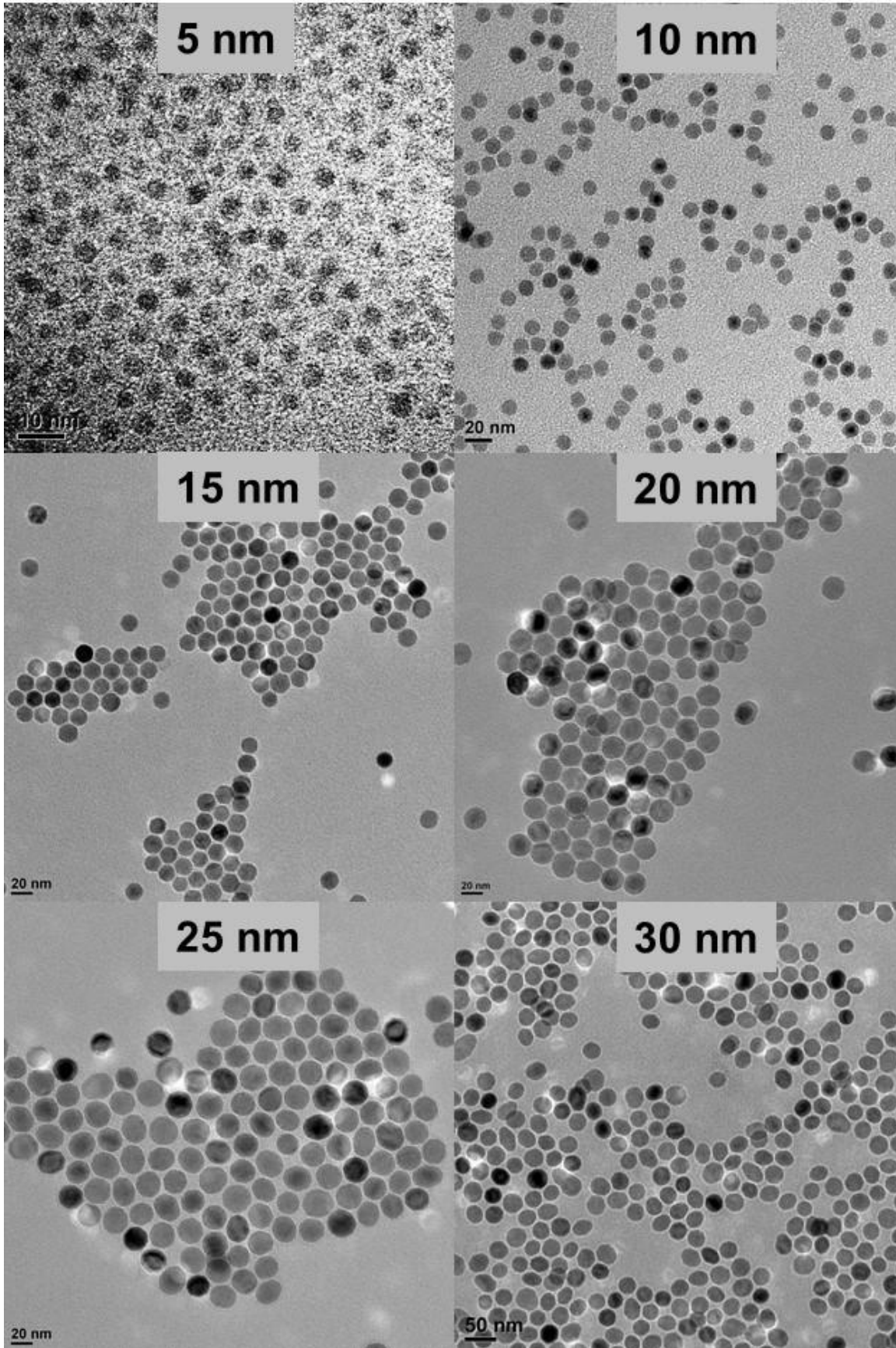


Technical Specification of Iron Oxide Nanocrystals with Amine Group

Description: SHA is a group of water soluble iron oxide nanocrystals with amphiphilic polymer and Dextran coating. Their surface functional group is amine and their zeta potential is from 0 mV to +10 mV. Their organic layers consist of a monolayer of oleic acid, a monolayer of amphiphilic polymer and a monolayer of Dextran. The overall thickness of the organic layers is about 6 nm. The hydrodynamic size of the nanocrystals is about 12-14 nm larger than their inorganic core size measured by the TEM. SHA can be conjugated to carboxylic acid or amine containing molecules with low non-specific binding.

Catalog number:	SHA
Product name:	Iron oxide nanocrystals in water with amine group.
Solvent:	10 mM PBS, pH 7.4, 0.02% NaN ₃
Storage:	4-25°C; Do not freeze.
pH stability:	4-10
Buffer stability:	Stable in Borate, Tris, HEPES, PBS, etc.
Shelf life:	12 months
Concentration:	5 mg/mL (Fe)

IO size (nm):	5	10	15	20	25	30
Size tolerance (nm):	2.5	2.5	2.5	2.5	2.5	2.5
Size distribution:	≤15%	≤15%	≤15%	≤15%	≤20%	≤20%
Molar concentration (uM) of 5 mg/mL (Fe):	34.5	4.3	1.35	0.55	0.29	0.17
Structure:	Maghemite		Magnetite			
Chemical Formula:	Fe ₂ O ₃		Fe ₃ O ₄			





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Ocean NanoTech, LLC shall not be held liable for any damage resulting from handling or contact with the above product.