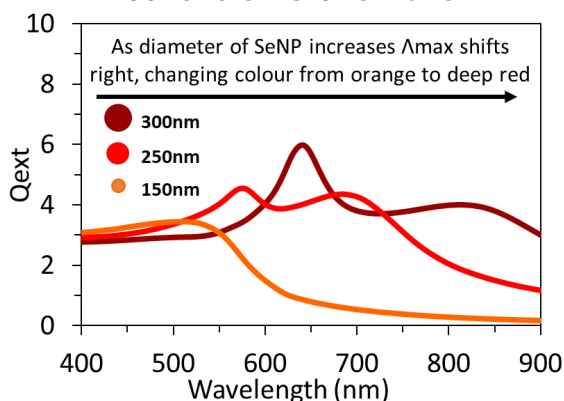
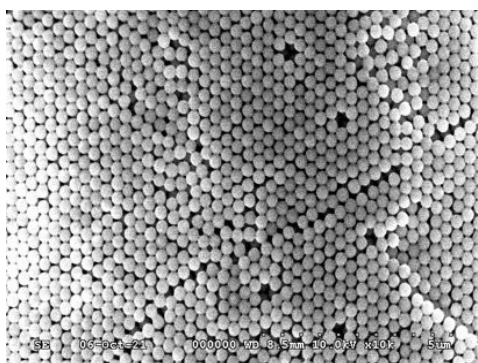


Glantreo produces highly monodispersed (CV < 8 %) Selenium nanoparticles (SeNP) in large batches with reproducibility in particle size, shape and dispersion. From an end application perspective (e.g., LFA), this consistency in production ensures more even antibody binding and greater reliability for conjugation, and therefore better consistency for your assay application. SEM imaging of the 300 nm particles illustrates the uniform nature of the Glantreo SeNP. Furthermore, UV vis profiles of particles agree with curves calculated for SeNP size using Mie scattering theory, indicating that samples are consistently monodisperse. Using Glantreo as an assured source of your Selenium nanoparticles can reduce assay development time, eliminate in-house production projects that have inherent development and manufacturing risks, and allow you to focus on leveraging your core competencies.

Effect of diameter on λ_{max}



SEM of 300 nm SeNP



Glantreo SeNP product



Typical properties of currently available Glantreo SeNP

Product diameter	150nm SeNP	250 nm SeNP	300 nm SeNP
λ_{max} (nm)	508+ 10	575 + 10	640 + 10
Theoretical λ_{max} predicted by Mie scattering (nm)	508	577	630
Size %CV	<8%		
Optical Density (OD)	19-21	19-21	19-21
Zeta potential (mv)	-30 to -35	-30 to -35	-30 to -35
Residual surfactants (ppm)	<20	<20	<20
Conductivity (mScm ⁻¹)	3-6	3-6	3-6
pH	4.5-7	4.5-7	4.5-7
Presentation matrix	Water		
Capping agent	None		
Shelf life	>1 year at OD20 when stored at 4°C		
Storage	2-8°C (unsuitable for freezing)		
Quantity	2 mL to multi-litre quantities		
Care instructions	Roll for 1 hr once a week		
Applications	LFA, Agriculture, Solar cells, Animal feed		

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