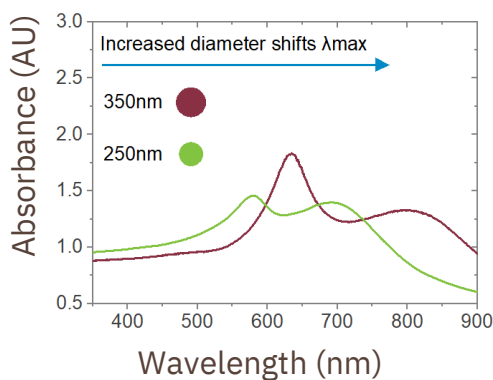
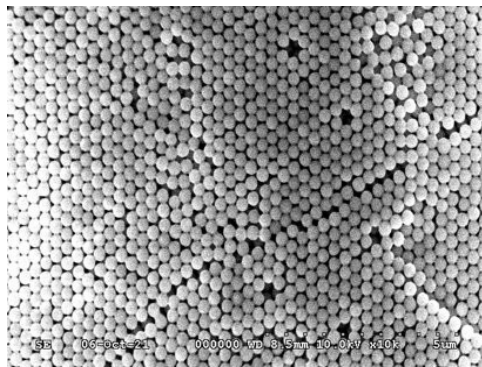


Glantreo produces highly monodispersed ( $CV < 8\%$ ) Selenium nanoparticles (SeNP) in large batches with reproducibility in particle size, shape and dispersion. From an end application perspective (e.g., LFA), this consistency in production ensures more even antibody binding and greater reliability for conjugation, and therefore better consistency for your assay application. SEM imaging of the 350 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 $\lambda_{max}$



### SEM of 350 nm SeNP



### Glantreo SeNP product



### Typical properties of currently available Glantreo SeNP

Product diameter	250 nm SeNP	350 nm SeNP
Applications	LFA tests, Agriculture, Anti-cancer, and more	
$\lambda_{max}$ (nm)	575 $\pm$ 10	640 $\pm$ 10
Theoretical $\lambda_{max}$ predicted by Mie scattering (nm)	577	630
Size %CV	<8%	
Optical Density (OD)	19-21	19-21
Zeta potential (mv)	-30 to -35	-30 to -35
Residual surfactants (ppm)	<20	<20
Conductivity ( $mS\text{cm}^{-1}$ )	3-6	3-6
pH	4.5-7	4.5-7
Presentation matrix	Water	
Capping agent	None	
Shelf life	3 months at OD 20	
Storage	2-8°C (unsuitable for freezing)	
Quantity	2 mL to multi-litre quantities	

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