



SpectraGenetics, Inc.  
2403 Sidney Street, Suite 255  
Pittsburgh, PA 15203  
+1 412.488.9350  
spectragenetics.com

## Product Specification

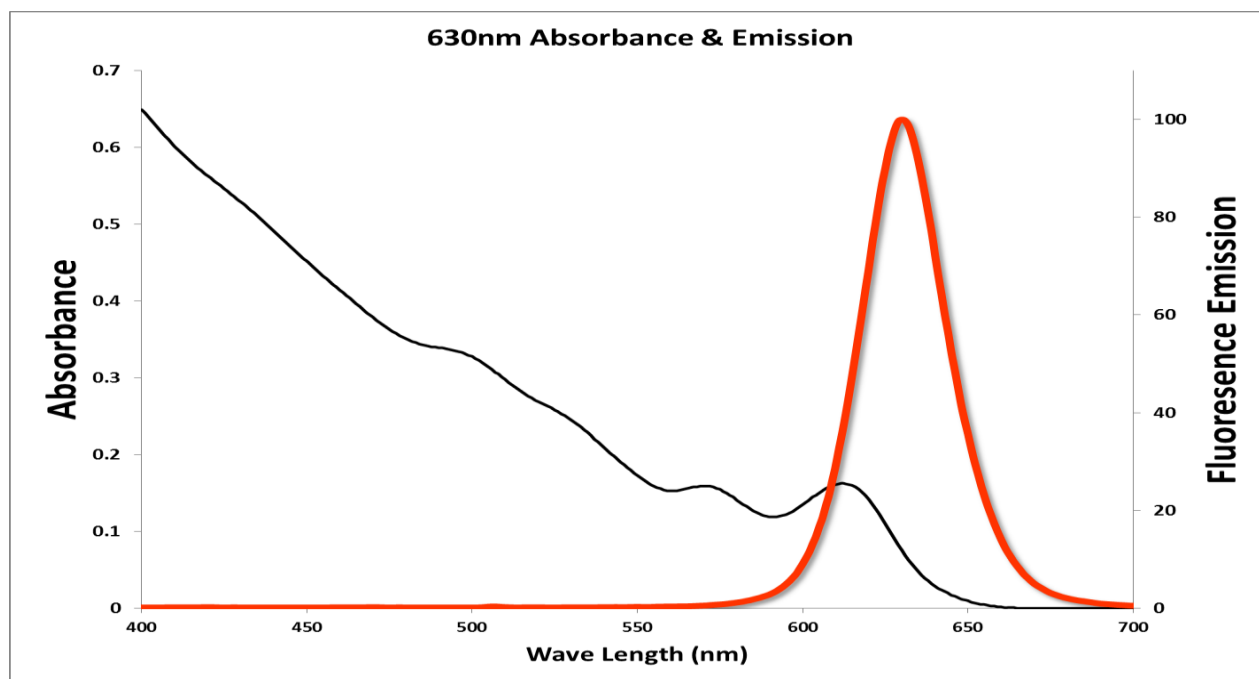
### Product: SpectraRed™ Fluorescent Nanocrystals

#### Contents

The vial(s) contain CdS<sub>x</sub>Se<sub>1-x</sub>/ZnS core/shell nanocrystals coated with oleic acid as ligand. The physical properties of nanocrystals are as follows: the emission wavelength,  $\lambda_{max}$ , is 630±5 nm; full width at half maximum (FWHM) of the emission spectra is 30 +/-5 nm; size (in diameter) is 6-7 nm; and the quantum yield is 45-55%. The nanocrystals are shipped in either toluene or water solvent, according to customer orders. Nanocrystals are also available in other solvents by request.

#### Instructions

The nanocrystals should be stored in the dark at 4 °C. The shelf life is approximately one year under these conditions. Nanocrystals may be isolated by using a polar solvent/nonpolar solvent precipitation method. Normally, methanol is used as the polar solvent. Nanocrystals will begin to precipitate at 30-40% methanol in toluene. Water-soluble nanocrystals have undergone surface modification to impart water solubility. During use the nanocrystals should not be subjected to ionic concentrations higher than 180 mM or a pH lower than 5.5 or greater than 9.0.



Rev 2016 03 07

Authorized for research use only