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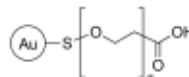
Outside USA: eurtechserv@sial.com

## Certificate of Analysis

Product Name:

Gold nanoparticles - 15 nm diameter, carboxylic acid functionalized, PEG 5000 coated, OD 50, dispersion in H<sub>2</sub>O

**Product Number:** 765481  
**Batch Number:** MKBL5791V  
**Brand:** ALDRICH  
**Storage Temperature:** Store at 2 - 8 °C  
**Quality Release Date:** 16 OCT 2012  
**Date Retested:** 21 MAY 2015  
**Recommended Retest Date:** MAY 2016



Test	Specification	Result
Appearance (Color)	Red to Very Dark Red	Very Dark Red
Appearance (Form)	Liquid	Liquid
Precipitate Present	None Present	None Present
Agglomeration/Precipitate		
Identity	Confirmed	Confirmed
Gold Nanoparticles, Carboxylic Acid Functionalized, PEG 5000 Coated		
Dispersion in Water	Confirmed	Confirmed
Concentration	Conforms	Conforms
(OD) = 50		
Core Size (Diameter)	13 - 17 nm	15 nm
Recommended Retest Period	-----	-----
12 Months		

Ali Ataei, Manager  
 Quality Control  
 Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.