

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Silver nanospheres – 60 nm avg. part. size, 1 mg/mL in water, lipoic acid functionalized

Product Number: 807370
Batch Number: MKBX2896
Brand: ALDRICH
Formula Weight: 18,02 g/mol
Storage Temperature: Store at 2-8 DEGREE C
Quality Release Date: 11 JAN 2016
Date Retested: 26 NOV 2018
Recommended Retest Date: NOV 2019

Test	Specification	Result
Appearance (Color)	Light Yellow to Yellow and Light Brown to Brown	Brown
Appearance (Form)	Liquid	Liquid
Wavelength		433 nm
Specification: Report Only		
ICP Major Analysis	Confirmed	Confirmed
Confirms Silver Component		
Diameter		61.2 nm
Specification: Report Only		
Surface Area		9.2 m2/g
(TEM)		
Specification: Report Only		
Concentration		1.07 mg/ml
Mass (Ag)		
Specification: Report Only		
Particles/ml	Confirmed	Confirmed
8.5E+ 11		
Diameter		68.6 nm
Hydrodynamic		
Specification: Report Only		
Zeta Potential		-43.5 mV
Specification: Report Only		
pH		6.3
Specification: Report Only		

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.

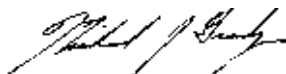
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Certificate of Analysis

Product Number: 807370
Batch Number: MKBX2896

Test	Specification	Result
Silver (Ag) 99.99%	Confirmed	Confirmed
Particle Surface Lipoic Acid	Confirmed	Confirmed
Recommended Retest Period 1 Year	-----	-----



Michael Grady, Manager
Quality Control
Milwaukee, WI US

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