

## Certificate of Analysis

## DSPE-PEG(2000)-tri mannose

1,2-distearoyl-sn-glycero-3-phosphoethanolamine-N-[carboxy(polyethylene glycol)-2000]-N-trimannose, ammonium salt

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**Molecular Weight** 3393.06 (average MW due to polydispersity of PEG)

**Chemical Formula** C<sub>155</sub>H<sub>304</sub>N<sub>3</sub>O<sub>72</sub>P (average MW due to polydispersity of PEG)

Physical State Powder Storage -20°C

**Expiration Date** One year from date of receipt

M Lot Number 7178PID010

**Lot Number** 880161P-10MG-D-010

ANALYSIS	SPECIFICATION	RESULTS
Physical Examination	<b>Powder</b> : White solid which contains no foreign matter	Pass
TLC	>99% Purity Ninhydrin: negative lodine: one major spot Phosphorus: positive Charring: positive Water dip: one major spot	All Pass
Proton NMR	NMR spectrum consistent with structure	Consistent with structure
Phosphorus NMR	NMR spectrum consistent with structure	Consistent with structure
Average Molecular Weight (MW) by TOF-MS	Run and Report	3374.774
Polydispersity Index (PDI) by TOF-MS	Run and Report	1.003

Approved by:

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