

Certificate of Analysis

DSPE-PEG(2000) Carboxylic Acid

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

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Molecular Weight 2780.38 (average MW due to polydispersity of PEG)

Chemical Formula C₁₃₁H₂₅₇NNaO₅₅P (representative formula due to polydispersity of PEG)

Physical State Powder Storage -20°C

Expiration Date One year from date of receipt

M Lot Number 6296PPA017

Lot Number 880135P-500MG-A-017

ANALYSIS	SPECIFICATION	RESULTS
Physical Examination	Powder: White solid which contains no foreign matter	Pass
TLC (80:20:2 Chloroform: Methanol: Ammonium Hydroxide)	>98% Purity Ninhydrin: negative Iodine: one major spot Phosphorus: positive Charring: negative Water dip: one major spot	> 98% Purity Ninhydrin: negative Iodine: one major spot Phosphorus: positive Charring: negative Water dip: one major spot
Proton NMR	NMR spectrum consistent with structure	Consistent with structure
FAME (GC/FID)	NLT 99% 18:0 (AUC)	100% 18:0 (AUC)
HPLC-ELSD	NLT 98% (AUC)	98.2% (AUC)
Molecular Weight (Mw) by LC-TOF-MS	Run and Report	2748.506
Polydispersity Index (PDI) by LC-TOF-MS	Run and Report	1.004

Approved by:

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