

**3D-PHAD<sup>®</sup>****Monophosphoryl 3-Deacyl Lipid A (Synthetic)****699852P-5MG****Page 1 of 1**

**Molecular Weight** 1537.114  
**Chemical Formula**  $C_{82}H_{158}N_3O_{20}P$   
**Physical State** Powder  
**Storage** -20°C  
**Expiration Date** One year from date of receipt  
**M Lot Number** 5089PHB017  
**Avanti Lot Number** 699852P-5MG-B-017

ANALYSIS	SPECIFICATION	RESULTS
Physical Examination	Powder: White solid which contains no foreign matter	Pass
TLC	>99% Purity Ninhydrin: negative Iodine: 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
HPLC-ELSD	NLT 99% (AUC)	99.6 % (AUC)
Mass Spectroscopy (TOF)	$[M-NH_4]^+ = 1518.12 \pm 1$ amu	$[M-NH_4]^+ = 1518.09$ amu

Approved By:



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