

Certificate of Analysis



Product Name: MAL-dPEG[®]₄-NHS ester
SKU Number: QBD-10214
Lot Number: AF1-A0405-083
Molecular Weight: 513.50

ASSAY	SPECIFICATION	LOT DATA
Appearance	Pale yellow oil (may solidify to a white solid upon storage conditions)	Pale yellow oil
¹ H NMR (Structural)	Consistent with structure	Consistent with structure
¹ H NMR (Purity)*	>95%	98.1%
HPLC-ELSD (Purity)**	>98%	99.8%

*Determined by quantitative ¹H NMR using an internal standard. Purity is the mean of four (4) independent samples.

**Determined by RP-HPLC using Evaporative Light-Scattering Detection (ELSD). Purity is the mean of three (3) independent samples.

This document certifies that Lot AF1-A0405-083 was analyzed and released by Vector Laboratories Quality Control on December 20, 2023, and was found to meet the currently established test parameters. This lot was retested on October 3, 2024, and was again found to meet the currently established test parameters. This is an updated version of the original Certificate of Analysis.

Dave Schory, M.S.
QC Manager

Vector Laboratories certifies on the date above that this is an accurate record of the analysis of the subject lot and that the data conform to the specifications in effect for this product at the time of analysis.