

Certificate of Analysis



Product Name: MAL-dPEG[®]₄-NHS ester
SKU Number: QBD-10214
Lot Number: AF1-A0406-002
Molecular Weight: 513.50

| ASSAY | SPECIFICATION | LOT DATA |
|---------------------------------|---|---------------------------|
| Appearance | Pale yellow oil (may solidify to a white solid upon storage conditions) | White solid |
| ¹ H NMR (Structural) | Consistent with structure | Consistent with structure |
| ¹ H NMR (Purity)* | >95% | 99.2% |
| HPLC-ELSD (Purity)** | >98% | 99.4% |

*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-A0406-002 was analyzed and released by Vector Laboratories Quality Control on December 11, 2024, and was found to meet the currently established test parameters.

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.