

# Certificate of Analysis



**Product Name:** m-dPEG<sup>®</sup><sub>4</sub>-MAL  
**SKU Number:** QBD-10745  
**Lot Number:** AF1-A0405-094  
**Molecular Weight:** 358.39

| ASSAY                           | SPECIFICATION             | LOT DATA                  |
|---------------------------------|---------------------------|---------------------------|
| Appearance                      | Off-white to white solid  | White solid               |
| <sup>1</sup> H NMR (Structural) | Consistent with structure | Consistent with structure |
| <sup>1</sup> H NMR (Purity)*    | >95%                      | 97.0%                     |
| HPLC-ELSD (Purity)**            | >98%                      | 99.9%                     |

\*Determined by quantitative <sup>1</sup>H NMR using an internal standard. Purity is the mean of two (2) 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-A0405-09 was analyzed and released by Vector Laboratories Quality Control on July 23, 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.*