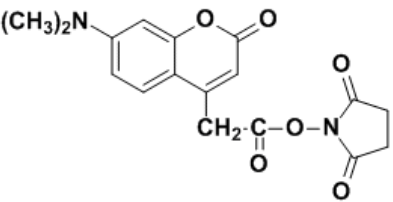


| Certificate of Analysis (C of A) | | | |
|--|---|---|---|
| Name: | DMACA, SE 7-Dimethylaminocoumarin-4-acetic acid, succinimidyl ester | | |
| Catalog Number: | 6062 | Lot: | 51098 |
| CAS Number: | 96686-59-8 | Formula: | C ₁₇ H ₁₆ N ₂ O ₆ |
| Molecular Weight: | 344.32 (g/mol) | | |
| | | | |
| | Observed | Standard | |
| HPLC Purity: | 97% at 254 nm | ≥ 90% at 254 nm | |
| Absorption (Methanol) | | | |
| Wavelength (λ _{max}): | 377 nm | 375 ± 3 nm | |
| Extinction: | 21,400 cm ⁻¹ M ⁻¹ | 21,000 ± 1,500 cm ⁻¹ M ⁻¹ | |
| Fluorescence (Methanol) | | | |
| Emission Max: | 472 nm | 470 ± 4 nm | |
| TLC Purity: | > 98% | ≥ 90% | |
| TLC System: | 95:5 Chloroform / Methanol | | |
| Storage: | Freeze: Store at -5 to -30°C (F), Protect from moisture (D), Protect from light (L) | | |
| Production Lot: | 15550 | Release: | 13-Feb-2017 |
| | | Expiration: | 13-Feb-2022 |
| Structure: |  | | |

This data reflects the accuracy of the analysis of the subject lot
 For research use only. Not for human use. No animal source.
 This material is chemically synthesized and manufactured in the USA

Approved by: Dianna M Wineinger
 Analytical Services Manager

Date: 13-Feb-2017

Signature: 