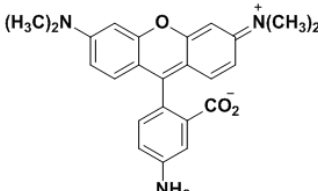


Certificate of Analysis (C of A)			
Name:	5-AminoTAMRA *Single Isomer* 5-Aminotetramethylrhodamine		
Catalog Number:	6239	Lot:	51080
CAS Number:	167095-10-5	Formula:	C ₂₄ H ₂₃ N ₃ O ₃
Molecular Weight:	401.46 (g/mol)		
	Observed	Standard	
HPLC Purity:	92% at 254 nm	≥ 90% at 254 nm	
Absorption (0.2M HCl/MeOH)			
Wavelength (λ _{max}):	553 nm	553 ± 3 nm	
Extinction:	88,500 cm ⁻¹ M ⁻¹	90,000 ± 5,000 cm ⁻¹ M ⁻¹	
Fluorescence (0.2M HCl/MeOH)			
Emission Max:	580 nm	580 ± 4 nm	
TLC Purity:	> 99%	≥ 90%	
TLC System:	85:13:2 Chloroform / Methanol / Ammonium Hydroxide		
Isomer Purity	Isomer ratio 99:1	>97%	
Storage:	Refrigerate: Store at 4-8°C (Ref), Protect from moisture (D), Protect from light (L)		
Production Lot:	15232	Release:	19-Nov-2015
		Expiration:	19-Nov-2025
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: 19-Nov-2015

Signature: 