

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-04-15 11:00:13
 Date of Next Testing: 2027-04-15 11:00:13
 Product Name: **Estra-5(10),9(11)-diene-3,17-dione 3-Ethylene Ketal**
 CAS Number: 5571-36-8
 Specifications & Purity: $\geq 98\%$ (HPLC)
 Lot #: D2403254
 SKU #: **E135189**
 Version: **0**
 Analysis #: **328419**
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Melting point	145-160 (°C)	157.50000 °C
Purity(HPLC)	98-100 (%)	98.84700 %
Specific Rotation $[\alpha]_{20/D}(c=0.005g/ml \text{ MeOH})$	300-320 (°)	318.24200 °
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager