



The Power to Question

# CERTIFICATE OF ANALYSIS

Catalog Number: sc-204090  
Lot Number: SAMPLE  
Product Name: MM 77 dihydrochloride  
CAS Number: 159311-94-1  
Molecular Formula:  $C_{19}H_{27}N_3O_3 \cdot 2HCl$   
Molecular Weight: 418.36

| Test                         | Specification | Result                                                            |
|------------------------------|---------------|-------------------------------------------------------------------|
| Appearance                   |               | White crystalline solid                                           |
| Identification ( $^1H$ -NMR) |               | Consistent with structure                                         |
| TLC                          |               | $R_f = 0.4$ (Dichloromethane: Methanol: Triethylamine [10: 1: 1]) |
| Melting Point                |               | 220 - 225 °C                                                      |
| Carbon Content               | 53.39%        | 53.38%                                                            |
| Hydrogen Content             | 7.07%         | 7.09%                                                             |
| Nitrogen Content             | 9.83%         | 9.8%                                                              |

Satisfaction Guarantee: We appreciate your business and are committed to providing the highest level of quality and service. Any product that does not meet the performance standards indicated in our product literature will be replaced at no charge. Our policy is valid for one year from the date of your purchase.

Santa Cruz Biotechnology, Inc. 800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 62221 4503 0 [www.scbt.com](http://www.scbt.com)