

**MP Biomedicals, LLC**29525 Fountain Parkway  
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## Certificate of Analysis

**Product Description:** N-Acetyl-L-arginine Dihydrate  
**Catalog Number:** 100078  
**Lot:** Q7454

**Formula:** C<sub>8</sub>H<sub>16</sub>N<sub>4</sub>O<sub>3</sub>·2H<sub>2</sub>O  
**CAS #:** 210545-23-6  
**Physical Description:** White Powder

**Formula Weight:** 252.27  
**Storage:** -20°C

| Test          | Specification        | Result               |
|---------------|----------------------|----------------------|
| Identity Test | Passes               | Passes               |
| FTIR          | Conforms to Standard | Conforms to Standard |

Identification (ESI-MS): m=216.12u (monoisotopic mass)  
Purity: >99% (TLC)  
Assay: 86.1% (Nth 25.91%, Nfd 22.30%)  
Water Content (KF): 14.4%  
Related impurities (TLC): <0.1% H-Arg-OH  
Enantiomer content (chiral chromatography): 0.3% D-enantiomer  
Elemental content (AAS): 153 mg/kg sodium  
Ammonium content (IC): det., <0.0093% (limit test)  
Acetic acid content (IC): 828 mg/kg  
Mass balance: 100.6%  
Recommended Retest Date: 08/31/2021



09/18/2017 - John Huang, PhD  
MP Biomedicals, LLC.  
Quality Control Manager

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