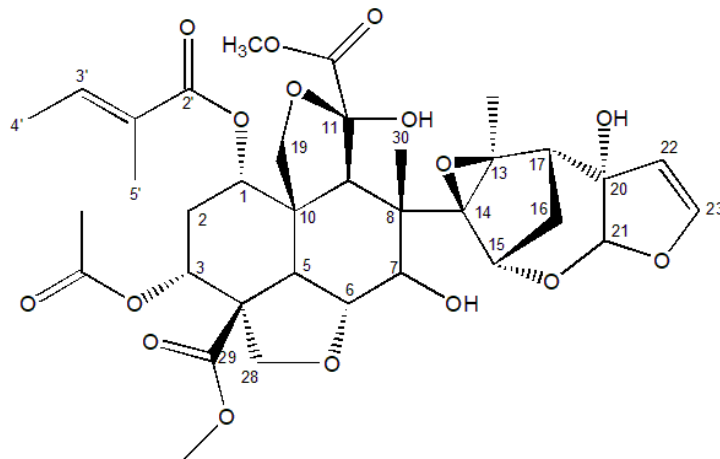


## Certificate of Analysis



|                         |  |
|-------------------------|--|
| <b>PRODUCT</b>          | Azadirachtin A   |
| <b>BATCH #</b>          | 040-150-304  |
| <b>ASSAY METHOD</b>     | HPLC, <sup>1</sup> HNMR  |
| <b>REPORT DATE</b>      | 2020-11-19   |
| <b>CHEMICAL NAME</b>    | dimethyl (1S,4S,5R,6S,7S,8R,11S,12R,14S,15R)-12-acetyloxy-4,7-dihydroxy-6-[[[(1R,2S,6S,8R,9R,11S)-2-hydroxy-11-methyl-5,7,10-trioxatetracyclo[6.3.1.02,6.09,11]dodec-3-en-9-yl]-6-methyl-14-[(E)-2-methylbut-2-enyl]oxy-3,9-dioxatetracyclo[6.6.1.01,5.011,15]pentadecane-4,11-dicarboxylate |
| <b>SMILES STRUCTURE</b> | <chem>CC=C(C)C(=O)OC1CC(C2(COC3C2C14COC(C4C(C3O))(C)C56C7CC(C5(O6)C)C8(C=COC8O7)O)(C(=O)OC)O)C(=O)OC(=O)OC(=O)C</chem>   |
| <b>OTHER NAMES</b>      | NA   |
| <b>CHEMICAL FORMULA</b> | C <sub>35</sub> H <sub>44</sub> O <sub>16</sub>  |
| <b>MOLECULAR WEIGHT</b> | 720.721 g/mol  |
| <b>CAS REG. #</b>       | 11141-17-6   |
| <b>STORAGE</b>          | <-20 degrees C; dark   |
| <b>EXPIRATION DATE</b>  | 2024-10-01   |
| <b>NOTES</b>            |  |

### Analytical Data

| TEST               | METHOD | SPECIFICATION | RESULT   |
|--------------------|--------|---------------|----------|
| HPLC               | 217 nm | >95%          | 99.2%    |
| <sup>1</sup> H-NMR |        | Conforms      | Conforms |
| Residual Solvents  |        | 1.07%         |          |
| Appearance         |        | White powder  |          |
| Adjusted Purity    |        | 98.13%        |          |

 Signed: Jan Glinski, Ph.D.  
 Planta Analytica, LLC  
 10/1/2020

