



## Gibberellic acid

|                    |                                  |
|--------------------|----------------------------------|
| <b>Cat. No.:</b>   | OB0626WX-1177                    |
| <b>Appearance:</b> | Solid                            |
| <b>Purity:</b>     | ≥90%                             |
| <b>Identity:</b>   | Confirmed by NMR, TLC, and HPLC. |
| <b>Size:</b>       | 1 g; 5 g; 10 g; 25 g             |

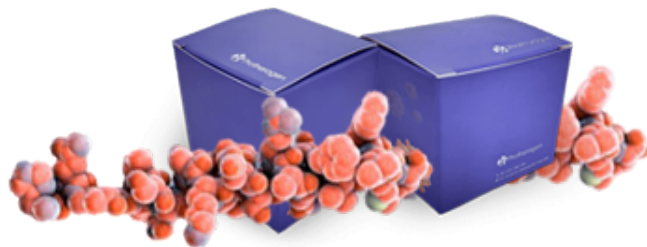
This product is for research use only and is not intended for diagnostic use.

### Product Overview

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Description</b>    | Gibberellic acid is a tetracyclic diterpene phytohormone and fungal metabolite naturally found across various plant species and <i>Gibberella</i> cultures, widely recognized for its regulatory role in promoting alpha-amylase expression, seed germination, internode elongation, and photomorphogenic development. Beyond plant biology, this bioactive diterpene modulates mammalian endocrine and metabolic profiles, showing a dual nature. |
| <b>Synonyms</b>       | (1 $\alpha$ ,2 $\beta$ ,4 $\alpha$ ,4 $\beta$ ,10 $\beta$ )-2,4a,7-trihydroxy-1-methyl-8-methylene-gibb-3-ene-1,10-dicarboxylic acid, 1,4a-lactone; GA3; (+)-Gibberellic Acid; Gibberellin A3; GA(3) gibberellin; 77-06-5                                                                                                                                                                                                                          |
| <b>CAS No.</b>        | 77-06-5                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Compound CID</b>   | 6466                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Formula</b>        | C <sub>19</sub> H <sub>22</sub> O <sub>6</sub>                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Formula Weight</b> | 346.4                                                                                                                                                                                                                                                                                                                                                                                                                                              |

### Specification

|                                     |                              |
|-------------------------------------|------------------------------|
| <b>Solubility in DMSO</b>           | 15 mg/mL                     |
| <b>Solubility in Ethanol</b>        | 5 mg/mL                      |
| <b>Solubility in DMF</b>            | 5 mg/mL                      |
| <b>Solubility in Other Solvents</b> | DMSO:PBS mixture: 0.20 mg/mL |



|                         |                                                                                                                                                                                                                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IUPAC Name</b>       | (1 <i>R</i> ,2 <i>R</i> ,5 <i>S</i> ,8 <i>S</i> ,9 <i>S</i> ,10 <i>R</i> ,11 <i>S</i> ,12 <i>S</i> )-5,12-dihydroxy-11-methyl-6-methylidene-16-oxo-15-oxapentacyclo[9.3.2.1 <sup>5,8</sup> .0 <sup>1,10</sup> .0 <sup>2,8</sup> ]heptadec-13-ene-9-carboxylic acid                                   |
| <b>InChI</b>            | InChI=1S/C19H22O6/c1-9-7-17-8-18(9,24)5-3-10(17)19-6-4-11(20)16(2,15(23)25-19)13(19)12(17)14(21)22/h4,6,10-13,20,24H,1,3,5,7-8H2,2H3,(H,21,22)/t10-,11+,12-,13-, 16-,17+,18+,19-/m1/s1                                                                                                               |
| <b>InChI Key</b>        | IXORZMNAPKEEDV-OB DJNFEBSA-N                                                                                                                                                                                                                                                                         |
| <b>Canonical SMILES</b> | <chem>C=C([C@]1(O)CC2)C[C@]3(C1)[C@]2([H])[C@]4(C=C[C@H](O)[C@]5(C(O4)=O)C)[C@]5([H])[C@@H]3C(O)=O</chem>                                                                                                                                                                                            |
| <b>Stability</b>        | 1 year                                                                                                                                                                                                                                                                                               |
| <b>Storage</b>          | Storage at -20°C.                                                                                                                                                                                                                                                                                    |
| <b>Applications</b>     | Gibberellic acid functions as an isolated tetracyclic diterpenoid plant hormone standard for calibrating high-performance column retention indices, establishing complex multi-component fingerprinting registries, and evaluating structural degradation kinetics in analytical assay formulations. |