# Product Information Sheet

# D297
# Dikegulac

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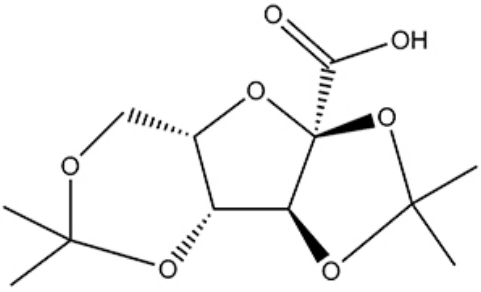
|---|---|
| Synonym: | 2,3:4,6-Bis-O-(methylethylidene)-α-L-xylo-2-hexulofuranosonic Acid |
| CAS: | 18467-77-1 |
| Formula: | $C_{12}H_{18}O_7$ |
| Molecular Wt: | 274.27 |




## Properties

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|---|---|
| Form: | Powder |
| Appearance: | White to Off-White Powder |
| Application: | Plant Growth Regulator |
| Solubility: | DMSO |
| Storage Temp: | 2 to 6˚ C |
| Typical Working Concentration: | Varies by application. Concentration should be determined by end user. |
| Other Notes: | Plant Tissue Culture Tested; For Research Use Only |

## Application Notes

Dikegulac is a plant growth regulator that is known to induce lateral branching and promote flower-bud formation by inhibiting apical dominance.[2,3] The effectiveness of dikegulac depends on concentrations and plant species used.

It has been reported that dikegulac is more effective when combined with other plant growth regulator than alone, for example, the combination of dikegulac and 2iP promotes positive growth increase for the highbush blueberry, V*accinium corymbosum* L. cv. Herbert[4], while the combination of dikegulac and zeatin promotes shoot development for olive, *Olea europaea* L. cv. Canino, Frantoio and Morailo[5]. The treatment of 66.7 µM dikegulac plus 4.5 µM zeatin has shown to increase lateral shoots and nodes of the olive cultivars previously mentioned; however, it has been noted that any dikegulac concentration above 66.7 µM has been shown to decrease instead of increase shoots and nodes.[5]

Please Note: While *Phyto*Technology Laboratories™ tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

## References

1. *Merck* **13**, 3222
2. Arzee, Tova, Haviva Langenauer, and J. Gressel. 1977. Effects of dikegulac, a new growth regulator, on apical growth and development of three compositae. Bot. Gaz. 138(1):18-28
3. Pozo, Luis, Ana Redondo, Ulrich Hartmond, Walter J. Kender, and Jacqueline K. Burns. 2004. Dikegulac promotes abscission in citrus. HortScience 39:1655-1658
4. Litwinczuk, Wojciech and Agata Prokop. 2010. The usefulness of dikegulac in propagation of highbush blueberry (*Vaccinium corymbosum* L.) 'Herbert'. Journal of Fruit and Ornamental Plant Research. 18(2):85-92
5. Gyves, Emilio Mendoza-de, Farida Rosana Mira, Fabrizio Ruiu, and Eddo Rugini. 2008. Stimulation of node and lateral shoot formation in micropropagation of olive (*Olea europaea* L.) by using dikegulac. *Plant Cell Tiss Organ Cult.* 92:233-238

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