LKT Laboratories, Inc.

Diosgenin

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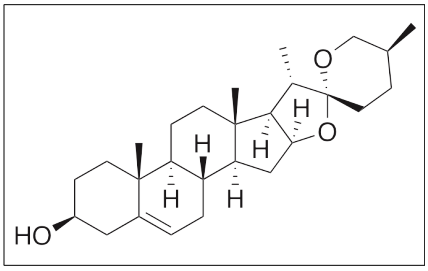
Product Information

Product ID D3355
CAS No. 512-04-9
Chemical Name

Synonym (25R)-5-Spirosten-3beta-ol, 3beta-Hydroxy-5-spirostene

Formula $C_{27}H_{42}O_3$
Formula Wt. 414.62
Melting Point 195-204°C
Purity ≥98%
Solubility Soluble in $CHCl_3$ (20mg/mL).



Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
D3355	5 g	$60.10
D3355	100 g	$240.30

Store Temp Ambient
Ship Temp Ambient

Description Diosgenin is a steroidal saponin found in *Dioscorea* that exhibits anticancer, anti-inflammatory, neuroprotective, cognition enhancing, and anti-hyperlipidemic activities. In breast cancer cells, diosgenin inhibits cell migration, actin polymerization, Vav2 phosphorylation, and Cdc42 activation. In macrophages, diosgenin inhibits production of NO and ROS, expression of iNOS, IL-6, and IL-1ß, and activation of JNK. Additionally, diosgenin improves performance on object recognition memory tasks and decreases amyloid-ß (Aß) plaque formation in the cortex and hippocampus of animal models of Alzheimer's disease. In diabetic mice, this compound decreases levels of triglycerides and inhibits activation of LXRα, ameliorating dyslipidemia.

References

He Z, Chen H, Li G, et al. Diosgenin inhibits the migration of human breast cancer MDA-MB-231 cells by suppressing Vav2 activity. Phytomedicine. 2014 Mar 18. [Epub ahead of print]. PMID: 24656238.

Tohda C, Urano T, Umezaki M, et al. Diosgenin is an exogenous activator of 1,25D3-MARRS/Pdia3/ERp57 and improves Alzheimer's disease pathologies in 5XFAD mice. Sci Rep. 2012;2:535. PMID: 22837815.

Uemura T, Goto T, Kang MS, et al. Diosgenin, the main aglycon of fenugreek, inhibits LXRα activity in HepG2 cells and decreases plasma and hepatic triglycerides in obese diabetic mice. J Nutr. 2011 Jan;141(1):17-23. PMID: 21106928.

Jung DH, Park HJ, Byun HE, et al. Diosgenin inhibits macrophage-derived inflammatory mediators through downregulation of CK2, JNK, NF-kappaB and AP-1 activation. Int Immunopharmacol. 2010 Sep;10(9):1047-54. PMID: 20601188.