



7-Ketositosterol

Cat. No.:	OB0626WX-501
Appearance:	Solid
Purity:	≥98%
Identity:	Confirmed by NMR, TLC, and HPLC.
Size:	5 mg; 10 mg; 25 mg; 50 mg

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

Product Overview

Description

7-Ketositosterol is a specialized phytosterol oxidation product (POP) generated via the intense thermal oxidation and degradation of the plant sterol sitosterol. This bioactive oxysterol compound exhibits targeted antineoplastic efficacy, successfully arresting the growth and restricting the survival of HL-60 acute myeloid leukemia (AML) cell lines with a measured IC50 value of 45.6 μM.

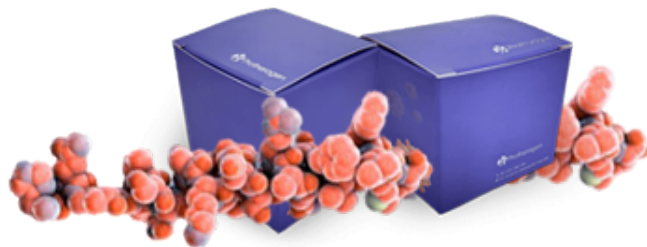
Synonyms

3β-hydroxy-stigmast-5-en-7-one; 7-oxo-β-Sitosterol; 7-Oxositosterol; 3-Hydroxystigmast-5-en-7-one; (3S,8S,9S,10R,13R,14S,17R)-17-[(2R,5R)-5-ethyl-6-methylheptan-2-yl]-3-hydroxy-10,13-dimethyl-1,2,3,4,8,9,11,12,14,15,16,17-dodecahydrocyclopenta[a]phenanthren-7-one; (3S,8S,9S,10R,13R,14S,17R)-17-[(2R,5R)-5-ethyl-6-methylheptan-2-yl]-3-hydroxy-10,13-dimethyl-1,2,3,4,8,9,11,12,14,15,16,17-dodecahydrocyclopenta(a)phenanthren-7-one; 7-oxo-beta-sitosterol; 3beta-hydroxystigmast-5-en-7-one; Stigmast-5-en-7-one, 3-hydroxy-, (3beta)-; stigmast-5-ene-3beta-ol-7-one; Stigmast-5-en-3.beta.-ol-7-one; Stigmast-5-en-7-one, 3-hydroxy-, (3A)-; Stigmast-5-en-7-one, 3-hydroxy-, (3.beta.)-; (3S,8S,9S,10R,13R,14S,17R)-17-[(1R,4R)-4-Ethyl-1,5-dimethyl-hexyl]-3-hydroxy-10,13-dimethyl-1,2,3,4,8,9,11,12,14,15,16,17-dodecahydrocyclopenta[a]phenanthren-7-one; 7-Oxysitosterol; 7-keto-Sitosterol; Stigmast-5-en-3-ol-7-one; 2034-74-4

CAS No. 2034-74-4

Compound CID 160608

Formula C₂₉H₄₈O₂



Formula Weight 428.7

Specification

Source	Synthetic
λ_{max}	238 nm
Solubility in Ethanol	3 mg/mL
Solubility in DMF	12 mg/mL
IUPAC Name	(3S,8S,9S,10R,13R,14S,17R)-17-[(2R,5R)-5-ethyl-6-methylheptan-2-yl]-3-hydroxy-10,13-dimethyl-1,2, 3,4,8,9,11,12,14,15,16,17-dodecahydrocyclopenta[a]phenanthren-7-one
InChI	InChI=1S/C29H48O2/c1-7-20(18(2)3)9-8-19(4)23-10-11-24-27-25(13-15-29(23,24)6)28(5)14-12-22(30)16-21(28)17-26(27)31/h17-20,22-25,27,30H,7-16H2,1-6H3/t19-,20-,22+,23-,24+,25+,27+,28+,29-/m1/s1
InChI Key	ICFXJOAKQGDRCT-ZIHMWMKCSA-N
Canonical SMILES	<chem>C[C@@]12[C@](CC[C@]2([H]))[C@@H](CC[C@@H](CC)C(C)C)([H])[C@@]3([H])[C@@](CC1)([H])[C@@]4(C[C@H](CC4)O)=CC3=O)C</chem>
Stability	1 year
Storage	Storage at -20°C.
Applications	7-Ketositosterol acts as an oxo-functionalized phytosterol oxidation derivative reference standard for profiling secondary plant sterol breakdown paths, investi gating sterol-induced membrane domain alterations, and optimizing analytical res olution indices.