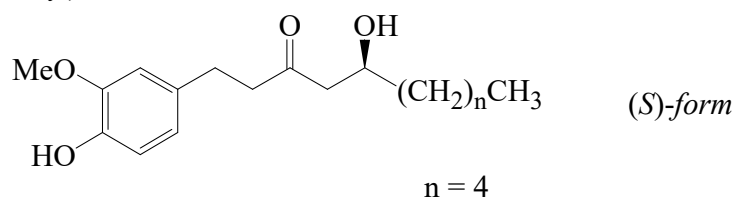




>>Entry Name: [6]-Gingerol

ENTRY UNDER REVIEW

Synonym(s): 5-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)-3-decanone, 9CI



Related CAS Registry Numbers(s): 23513-08-8 23513-15-7 41743-67-3 41743-68-4 41743-69-5 99742-03-7

Molecular Formula: $C_{17}H_{26}O_4$

Molecular Weight: 294.39

Accurate Mass: 294.18311

Percentage Composition: C 69.36%; H 8.90%; O 21.74%

Gingerols have also been isol.

>>Variant: (R)-form

Molecular Formula: $C_{17}H_{26}O_4$

Molecular Weight: 294.39

Accurate Mass: 294.18311

Percentage Composition: C 69.36%; H 8.90%; O 21.74%

Physical Description: Yellow oil

Optical Rotation: $[\alpha]_D -25.1$ (c, 1 in $CHCl_3$)

>>Variant: (S)-form

CAS Registry Number: 23513-14-6

Molecular Formula: $C_{17}H_{26}O_4$

Molecular Weight: 294.39

Accurate Mass: 294.18311

Percentage Composition: C 69.36%; H 8.90%; O 21.74%

Biological Source: Constit. of ginger *Zingiber officinale*

Physical Description: Pungent yellow oil

Optical Rotation: $[\alpha]_D +26.5$ (c, 1 in $CHCl_3$)

UV: [neutral] λ_{max} 282 (ϵ 2560) (MeOH) (Berdy) [neutral] λ_{max} 211 (); 282 () (EtOH) (Berdy)

>>Derivative: Me ether

Synonym(s): Methylgingerol

Molecular Formula: $C_{18}H_{28}O_4$

Molecular Weight: 308.417

Accurate Mass: 308.19876

Percentage Composition: C 70.10%; H 9.15%; O 20.75%

Biological Source: Present in ginger

Physical Description: Cryst. (hexane/ C_6H_6)

Melting Point: Mp 65.5-66°

Optical Rotation: $[\alpha]_D^{23} +28.4$ (c, 2 in $CHCl_3$)

References:

- Connell, D.W. *et al.*, *Aust. J. Chem.*, 1969, **22**, 1033, (*isol, struct*)
Enders, D. *et al.*, *Chem. Ber.*, 1979, **112**, 3703, (*synth*)
Denniff, P. *et al.*, *J.C.S. Perkin I*, 1980, 2637, (*biosynth*)
Giovanni, B.P. *et al.*, *J.C.S. Perkin I*, 1982, 2983, (*synth*)
Kato, N. *et al.*, *Chem. Pharm. Bull.*, 1984, **32**, 1679, (*synth*)
Solladie, G. *et al.*, *J.O.C.*, 1993, **58**, 2181, (*synth, bibl*)
Fleming, S.A. *et al.*, *Synth. Commun.*, 1999, **29**, 1933-1939, (*synth, pmr, cmr*)