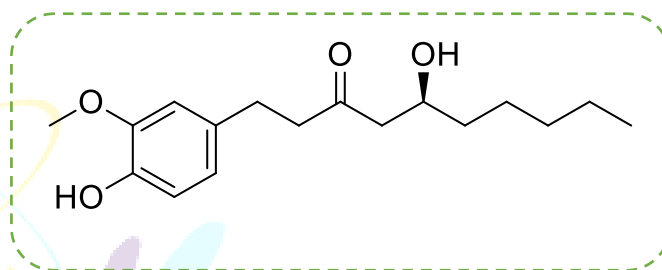




Product Data Sheet

6-Gingerol

(5S) - 5-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)-3-decanone





Origin/ Sources:

Product was extracted from ginger (*Zingiber officinale*) cultivated from south India. Around 0.2% from wet ginger and 0.8 from dry ginger.



Application:

[6]-Gingerol has been used:

- to study its effects on transient receptor potential (TRP) channels
 - to study its effects on experimental models of non-alcoholic steatohepatitis
 - to determine its effects on microsomal prostaglandine E2 synthase 1 (mPGES-1), glycogen synthase kinase 3 β (GSK-3 β) and β -catenin pathway in A549 cell line
 - to analyse the effects of 6-Shogaol (6-SG) on diabetic nephropathy (DN) in db/db mice.
 - Cancer research, dietary research, food additive research & metabolism research
- 3870 patents and 19,300 publication are available on gingerol till date and still counting.

699 patents and 11,700 articles published on 6-gingerol.

1500 articles published on 6-gingerol in 2018-19.

Pack size:

10mg, 50mg, 100mg, 1gm and 10gm

Custom packing available on request



Biochemistry Actions

Bioactive compound found in ginger (*Zingiber officinale*) with antioxidant activity, which functions as an anti-inflammatory and antitumor agent. [6]-Gingerol down regulates proinflammatory cytokine release by macrophages. It has been





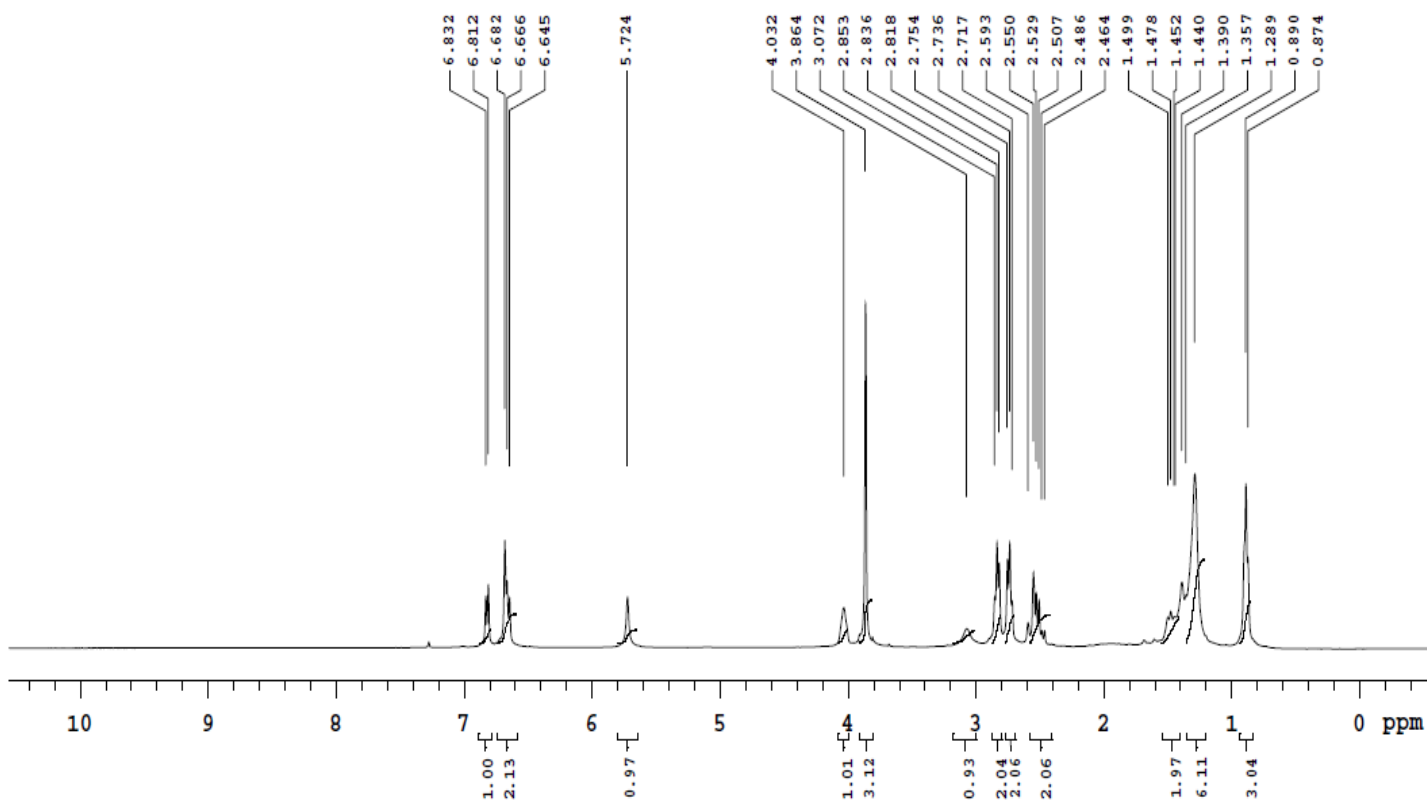
shown to inhibit COX-2 expression by blocking the activation of p38 MAP kinase and NF-κB in phorbol ester-stimulated mouse skin.

General description

[6]-Gingerol is implicated in apoptosis, cell cycle regulation, cytotoxic activity and inhibition of angiogenesis. It prevents serotonin release and platelet aggregation. Gingerol has immunomodulatory, antiapoptotic, antihyperglycemic, antilipidemic and antiemetic properties.

Identification:

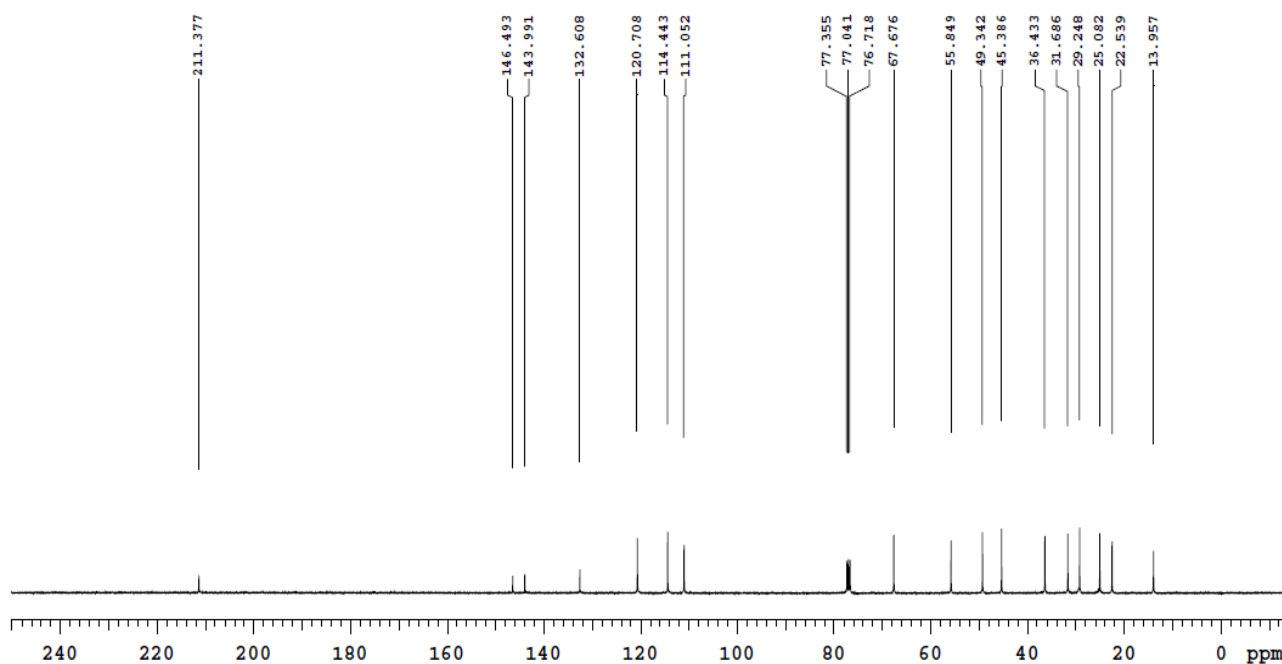
NMR spectra: Spectra was recorded in 400MHz NMR spectrometer in CDCl₃ at RT. All the representative peaks are present in the spectra and conform to structure.





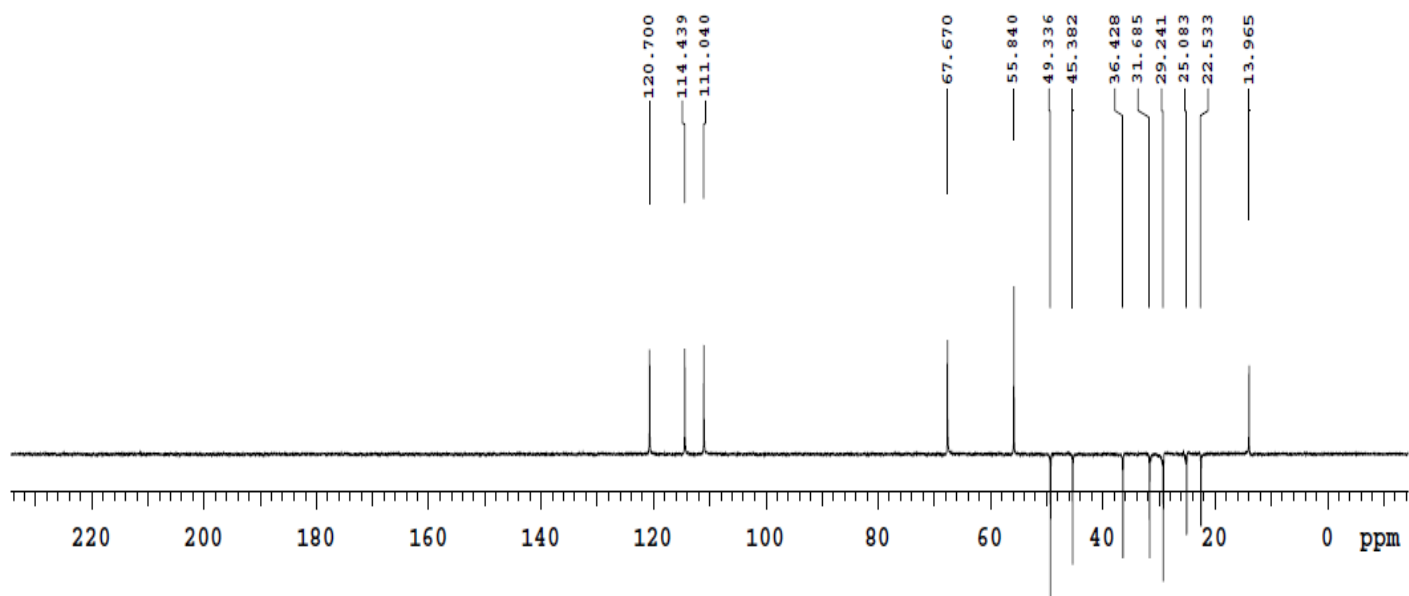
¹³C-NMR was recorded in 100MHz at RT

All the representative peaks are present in the spectra and conform to structure.



DEPT Spectra was recorded in 100MHz (by pulse at 90 degree) at RT.





Mass spectra:

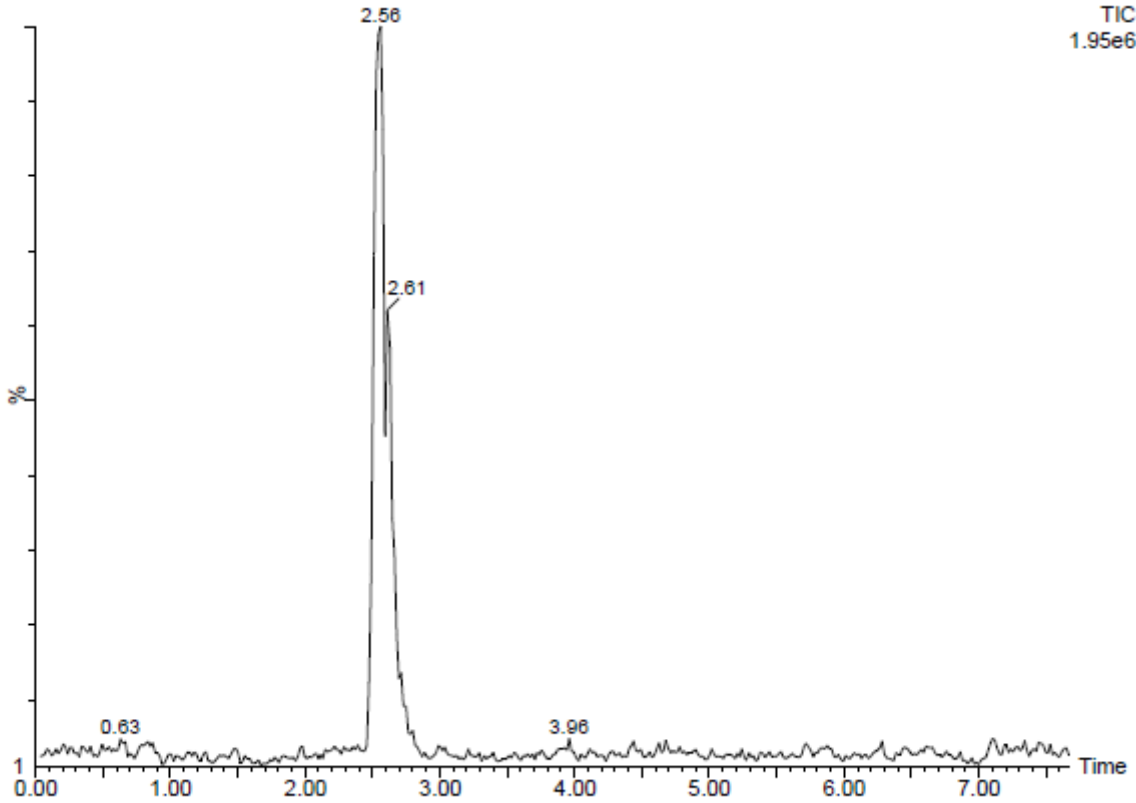
Mass -18, peaks are present in the spectra and conform to structure.





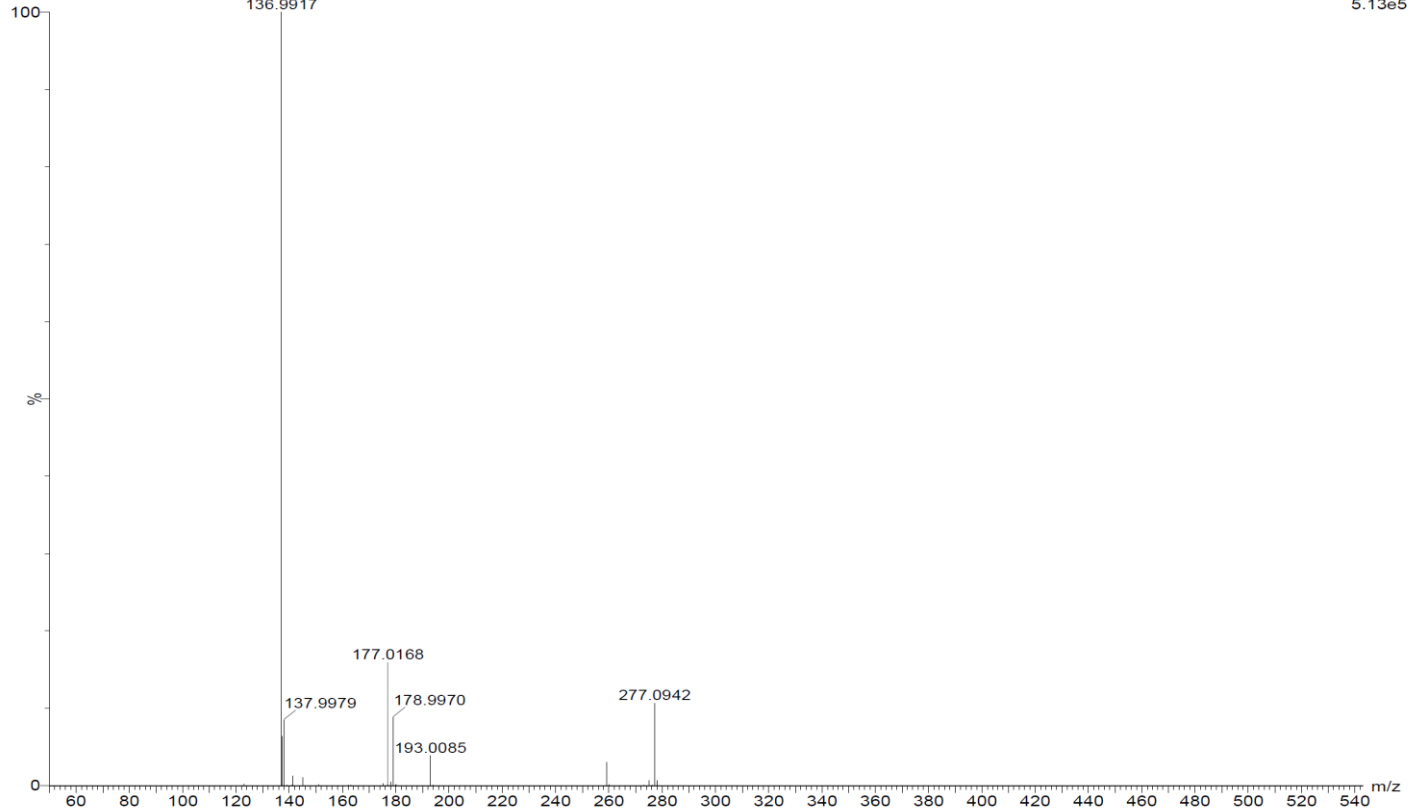
19012067-SRC-001-130

1: TOF MS AP+
TIC
1.95e6



19012067-SRC-001-130 148 (2.544)
136.9917

1: TOF MS AP+
5.13e5



References:





Biological properties of 6-gingerol: a brief review. Wang S, et al. Natural Product Communications 9(7), 1027-1030, (2014)

Effect of Herbal Supplement-Drug Interactions on Therapeutic Drug Monitoring Chin AC and Baskin LB Therapeutic Drug Monitoring, 417-445, (2012)

Effects of ginger and its pungent constituents on transient receptor potential channels Kim YS, et al. International Journal of Molecular Medicine 38(6), 1905-1914, (2016)

[6]-Gingerol dampens hepatic steatosis and inflammation in experimental nonalcoholic steatohepatitis Tzeng TF, et al. Phytomedicine 22(4), 452-461, (2015)

Revealing the effect of 6-gingerol, 6-shogaol and curcumin on mPGES-1, GSK-3beta and beta-catenin pathway in A549 cell line Eren D and Betul YM Chemico-Biological Interactions 258, 257-265, (2016)

Health and Safety:

For information write-us research@sriramchem.com

Or visit us www.sriramchem.com





Certificate of Analysis

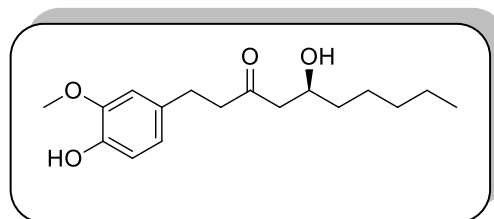
Compound Name : 6-Gingerol
(5S)-, 5-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)-3-decanone

Batch No : SRC-001-130

Molecular Formula : C₁₇H₂₆O

Molecular Weight : 294

Appearance : Brown oil



TLC : Single spot at R_f about 0.3

(Stationary Phase-Silica gel
Mobile phase:-Hexane:ETA::4:1)

Identification : ¹H NMR & Mass

Purity (HPLC) : 95%

Solubility : Clear (1mg/ml) in methanol

Storage condition : 2-5°C

Manufacturing date : Jul. 2022

Retest date : Jun. 2026

Authorized Signature
(Product Manager)

