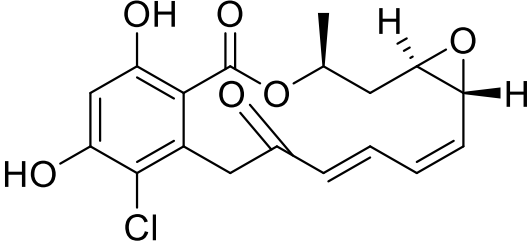


Product data sheet



MedKoo Cat#: 562206 Name: Radicolol CAS: 12772-57-5 Chemical Formula: C ₁₈ H ₁₇ ClO ₆ Exact Mass: 364.0714 Molecular Weight: 364.78	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

Product description:

Radicolol is an Hsp90 N-terminal inhibitor.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
Ethanol	3.65	10

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.74 mL	13.71 mL	27.41 mL
5 mM	0.55 mL	2.74 mL	5.48 mL
10 mM	0.27 mL	1.37 mL	2.74 mL
50 mM	0.05 mL	0.27 mL	0.55 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

- Kim SH, Kang JG, Kim CS, Ihm SH, Choi MG, Yoo HJ, Lee SJ. Hsp70 inhibition potentiates radicolol-induced cell death in anaplastic thyroid carcinoma cells. *Anticancer Res.* 2014 Sep;34(9):4829-37. PMID: 25202064.
- Qin F, Li Y, Lin R, Zhang X, Mao Z, Ling J, Yang Y, Zhuang X, Du S, Cheng X, Xie B. Antibacterial Radicolol Analogues from *Pochonia chlamydosporia* and Their Biosynthetic Gene Cluster. *J Agric Food Chem.* 2019 Jul 3;67(26):7266-7273. doi: 10.1021/acs.jafc.9b01977. Epub 2019 Jun 24. PMID: 31244199.

In vivo study

- Shi J, Jiang M, Wang H, Luo Z, Guo Y, Chen Y, Zhao X, Qiang S, Strasser RJ, Kalaji HM, Chen S. Effects of Mycotoxin Fumagillin, Mevastatin, Radicolol, and Wortmannin on Photosynthesis of *Chlamydomonas reinhardtii*. *Plants (Basel).* 2023 Feb 2;12(3):665. doi: 10.3390/plants12030665. PMID: 36771749; PMCID: PMC9920790.
- Oikawa T, Onozawa C, Kuranuki S, Igarashi Y, Sato M, Ashino H, Shimamura M, Toi M, Kurakata S. Dipalmitoylation of radicolol results in improved efficacy against tumor growth and angiogenesis in vivo. *Cancer Sci.* 2007 Feb;98(2):219-25. doi: 10.1111/j.1349-7006.2006.00359.x. PMID: 17233839.

7. Bioactivity

Biological target:

Product data sheet



Radicicol is an antifungal antibiotic. It inhibits heat shock protein 90 (Hsp90) activity by binding to the ATP-binding pocket, subsequently suppressing cell transformation induced by src, ras and mos. Radicicol represses estrogen receptor transcriptional activity and inhibits angiogenesis.

In vitro activity

Radicicol induces cell death mediated through PI3K/Akt signaling with modulation of hsp90 client proteins and hsp70 inhibition enhances radicicol-induced cell death with suppression of survivin in anaplastic thyroid carcinomacells.

Reference: Anticancer Res. 2014 Sep;34(9):4829-37. <https://pubmed.ncbi.nlm.nih.gov/25202064/>

In vivo activity

Radicicol decreased photosynthetic efficiency of Chlamydomonas reinhardtii, mainly by inhibiting the electron transport efficiency of the PSII acceptor side and the activity of the PSII reaction centers. Radicicol reduced the primary photochemical reaction efficiency and antenna size. These findings provide new ideas for the design of novel and efficient herbicide molecules.

Reference: Plants (Basel). 2023 Feb 2;12(3):665. <https://pubmed.ncbi.nlm.nih.gov/36771749/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.