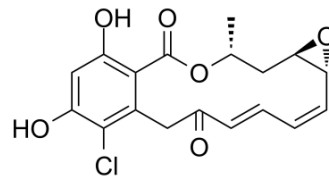


## Radicicol

Cat. No.:	HY-N6769
CAS No.:	12772-57-5
Molecular Formula:	C <sub>18</sub> H <sub>17</sub> ClO <sub>6</sub>
Molecular Weight:	364.78
Target:	ATP Synthase; Apoptosis
Pathway:	Membrane Transporter/Ion Channel; Apoptosis
Storage:	Please store the product under the recommended conditions in the COA.



### BIOLOGICAL ACTIVITY

#### Description

Radicicol is an inhibitor of the ATPase/kinase with IC<sub>50</sub> values of 1 μM, 100 μM and 400 μM, respectively for Hsp90, Topo VI and PDK3 [1]. Radicicol inhibits a wide variety of tumor cell lines by targeting Hsp90, binds to the ATPase domain of Hsp90 and prevents maturation of Hsp90 clients, leading to proteasomal degradation [2]. Radicicol is an antifungal antibiotic with antimalarial activity, impairs mitochondrial replication by targeting P. falciparum topoisomerase VIB [2]. Radicicol is an inhibitor of fat mass and obesity-associated protein (FTO), exhibits a dose-dependent inhibition of FTO demethylation activity with an IC<sub>50</sub> value of 16.04 μM [3].

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: of 1 μM (Hsp90), 100 μM (Topo VI) and 400 μM (PDK3) [1]

### REFERENCES

- [1]. Kato M, et al. Distinct structural mechanisms for inhibition of pyruvate dehydrogenase kinase isoforms by AZD7545, dichloroacetate, and radicicol. *Structure*. 2007 Aug;15(8):992-1004. Epub 2007 Aug 2.
- [2]. Chalapareddy S, et al. Radicicol confers mid-schizont arrest by inhibiting mitochondrial replication in Plasmodium falciparum. *Antimicrob Agents Chemother*. 2014 Aug;58(8):4341-52.
- [3]. Wang R, et al. Identification of Natural Compound Radicicol as a Potent FTO Inhibitor. *Mol Pharm*. 2018 Sep 4;15(9):4092-4098.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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