# DL-Acetylshikonin

**Cat. No.:** HY-N2181A

**CAS No.:** 54984-93-9

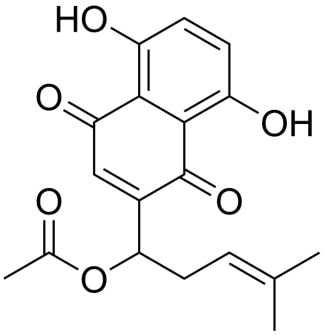
**Molecular Formula:** $C_{18}H_{18}O_6$

**Molecular Weight:** 330.33

**Target:** Cytochrome P450

**Pathway:** Metabolic Enzyme/Protease

**Storage:** Please store the product under the recommended conditions in the Certificate of Analysis.




## BIOLOGICAL ACTIVITY

**Description**

DL-Acetylshikonin is a non-selective, reversible cytochrome P450 inhibitor with $IC_{50}$ values of 1.4-4.0 μM. DL-Acetylshikonin has anti-cancer and anti-inflammatory activities[1].

**$IC_{50}$ & Target**

| | | | |
|---|---|---|---|
| CYP2C8<br>1.4 μM ($IC_{50}$) | CYP2B6<br>2.0 μM ($IC_{50}$) | CYP3A<br>2.3 μM ($IC_{50}$) | CYP2C19<br>2.5 μM ($IC_{50}$) |
| CYP2D6<br>2.5 μM ($IC_{50}$) | CYP2E1<br>2.7 μM ($IC_{50}$) | CYP2C9<br>3.3 μM ($IC_{50}$) | CYP2J2<br>3.3 μM ($IC_{50}$) |
| CYP2A6<br>3.8 μM ($IC_{50}$) | CYP1A2<br>4.0 μM ($IC_{50}$) | | |

**In Vitro**

DL-Acetylshikonin inhibits CYP3A-mediated testosterone and Nifedipine (HY-B0284) metabolism with $IC_{50}$ values of 5.2 μM and 3.0 μM, respectively, indicating that it inhibits CYP3A activity in a substrate-independent manner[1].
DL-Acetylshikonin is not a time-dependent inhibitor[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Shon JC, et al. Acetylshikonin is a novel non-selective cytochrome P450 inhibitor. Biopharm Drug Dispos. 2017 Dec;38(9):553-556.

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

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