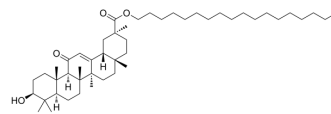


## Stearyl glycyrrhetinate

|                    |  |
|--------------------|--|
| Cat. No.:          | HY-N2417   |
| CAS No.:           | 13832-70-7   |
| Molecular Formula: | C <sub>48</sub> H <sub>82</sub> O <sub>4</sub>   |
| Molecular Weight:  | 723.16   |
| Target:            | Bacterial  |
| Pathway:           | Anti-infection   |
| Storage:           | 4°C, stored under nitrogen<br>* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen) |



### SOLVENT & SOLUBILITY

|   |   |                          |           |           |           |            |
|---|---|--------------------------|-----------|-----------|-----------|------------|
| In Vitro  | Ethanol : 25 mg/mL (34.57 mM; Need ultrasonic)  |                          |           |           |           |            |
|   | DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)  |                          |           |           |           |            |
|   | Preparing Stock Solutions   | Solvent<br>Concentration | Mass      | 1 mg      | 5 mg      | 10 mg      |
|   |   |                          | 1 mM      | 1.3828 mL | 6.9141 mL | 13.8282 mL |
|   |   |                          | 5 mM      | 0.2766 mL | 1.3828 mL | 2.7656 mL  |
| 10 mM   |   |                          | 0.1383 mL | 0.6914 mL | 1.3828 mL |            |
| Please refer to the solubility information to select the appropriate solvent. |   |                          |           |           |           |            |
| In Vivo   | 1. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: 2.5 mg/mL (3.46 mM); Suspended solution; Need ultrasonic |                          |           |           |           |            |
|   | 2. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)<br>Solubility: 2.5 mg/mL (3.46 mM); Suspended solution; Need ultrasonic            |                          |           |           |           |            |
|   | 3. Add each solvent one by one: 10% EtOH >> 90% corn oil<br>Solubility: ≥ 2.5 mg/mL (3.46 mM); Clear solution   |                          |           |           |           |            |

### BIOLOGICAL ACTIVITY

|             |  |
|-------------|--|
| Description | Stearyl glycyrrhetinate, a major component in licorice extract, has a MIC against <i>S. aureus</i> strains of more than 256 mg/L. Stearyl glycyrrhetinate has antibacterial effects <sup>[1]</sup> .   |
| In Vitro    | Glycyrrhetic acid (GRA) and disodium succinoyl glycyrrhetinate (GR-SU) shows strong antibacterial activities compared to the other three agents tested. At a higher concentration (above 2x MIC), GRA and GR-SU shows bactericidal activity, whereas at a concentration of 1x MIC, they showed a bacteriostatic effect <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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## REFERENCES

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[1]. Oyama K, et al. Antibacterial Effects of Glycyrrhetic Acid and Its Derivatives on Staphylococcus aureus. PLoS One. 2016 Nov 7;11(11):e0165831.

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

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