# Resibufogenin

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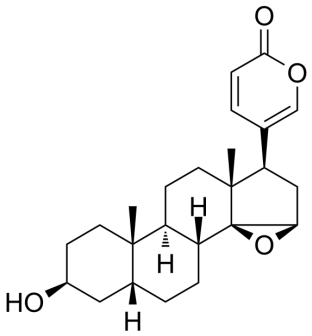
|---|---|---|---|
| **Cat. No.:** | HY-N0815 | | |
| **CAS No.:** | 465-39-4 | | |
| **Molecular Formula:** | $C_{24}H_{32}O_4$ | | |
| **Molecular Weight:** | 384.51 | | |
| **Target:** | Others | | |
| **Pathway:** | Others | | |
| **Storage:** | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (260.07 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.6007 mL | 13.0036 mL | 26.0071 mL |
| | 5 mM | 0.5201 mL | 2.6007 mL | 5.2014 mL |
| | 10 mM | 0.2601 mL | 1.3004 mL | 2.6007 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.75 mg/mL (7.15 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.75 mg/mL (7.15 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.75 mg/mL (7.15 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Resibufogenin, a component of huachansu, has been shown to exhibit the anti-proliferative effect against cancer cells, and this may be attributed to the degradation of cyclin D1 caused by the activation of GSK-3β.IC50 Value:Target:In vitro: The effects of Resibufogenin on the outward delayed rectifier potassium current (IK) and outward transient potassium current (IA) in rat hippocampal neurons was investigated, and it inhibited both IK and IA, at 1 μM concentration RBG could alter some channel kinetics and gating properties of IK, such as steady-state activation and inactivation curves, open probability and time constants [1].In vivo: Resibufogenin prevented evidence of oxidative stress in "preeclamptic" rats [2].

## CUSTOMER VALIDATION

- Am J Transl Res. 2019 Oct 15;11(10):6290-6303.
- Anat Rec. 2021 Feb;304(2):302-312.

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## REFERENCES


[1]. Hao S, et al. Effects of Resibufogenin and Cinobufagin on voltage-gated potassium channels in primary cultures of rat hippocampal neurons. Toxicol In Vitro. 2011 Dec;25(8):1644-53.

[2]. Uddin MN, et al. Resibufogenin administration prevents oxidative stress in a rat model of human preeclampsia. Hypertens Pregnancy. 2012;31(1):70-8.

[3]. Ichikawa M, et al. Resibufogenin Induces G1-Phase Arrest through the Proteasomal Degradation of Cyclin D1 in Human Malignant Tumor Cells. PLoS One. 2015 Jun 29;10(6):e0129851.

[4]. Hao S, et al. Effects of resibufogenin on voltage-gated sodium channels in cultured rat hippocampal neurons. Neurosci Lett. 2011 Aug 26;501(2):112-6.

[5]. Zheng J, et al. Novel microbial transformation of resibufogenin by Absidia coerules. Nat Prod Commun. 2011 Nov;6(11):1581-4.

[6]. Xin XL, et al. Novel microbial transformation of resibufogenin by Fusarium solani. J Asian Nat Prod Res. 2011 Sep;13(9):831-7.





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