

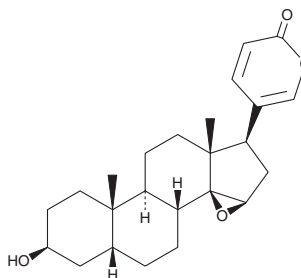
PRODUCT INFORMATION



Resibufogenin

Item No. 9001348

CAS Registry No.: 465-39-4
Formal Name: (3 β ,5 β ,15 β)-14,15-epoxy-3-hydroxy-bufa-20,22-dienolide
Synonyms: Bufogenin, NSC 90783, Respigon
MF: C₂₄H₃₂O₄
FW: 384.5
Purity: \geq 98%
UV/Vis.: λ_{max} : 299 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Resibufogenin is supplied as a crystalline solid. A stock solution may be made by dissolving the resibufogenin in the solvent of choice. Resibufogenin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of resibufogenin in these solvents is approximately 2, 20, and 25 mg/ml, respectively.

Resibufogenin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, resibufogenin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Resibufogenin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Resibufogenin is a cardiac glycoside first isolated from *Bufo* venom that acts as an inhibitor of the Na⁺/K⁺-ATPase.¹ It exhibits cardiotonic, vasopressor, and respiratory stimulating actions in both animal and clinical models.² Resibufogenin has been used to antagonize the action of marinobufagenin in a rat experimental model of preeclampsia.³ Resibufogenin is also reported to have antiproliferative effects against cancer cells, inducing cell cycle arrest by suppressing the expression of cyclin D1.⁴

References

1. Pamnani, M. B., Chen, S., Bryant, H. J., *et al.* Effects of three sodium-potassium adenosine triphosphatase inhibitors. *Hypertension* **18**(3), 316-324 (1991)
2. Iwatsuki, K., Yusa, T., Kataoka, Y., *et al.* Experimental and clinical studies of resibufogenin. *Tohoku J. Exp. Med.* **86**(2), 93-101 (1965).
3. Puschett, J. B., Agunanne, E. and Uddin, M. N. Marinobufagenin, resibufogenin and preeclampsia. *Biochim Biophys. Acta.* **1802**(12), 1246-1253 (2010).
4. Ichikawa, M., Sowa, Y., Iizumi, Y., *et al.* Resibufogenin induces G₁-phase arrest through the proteasomal degradation of cyclin D1 in human malignant tumor cells. *PLoS One* **10**(6), (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM