

# PRODUCT INFORMATION



## Jervine

Item No. 11723

**CAS Registry No.:** 469-59-0  
**Formal Name:** (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-spiro[9H-benzo[a]fluorene-9,2'(3'H)-furo[3,2-b]pyridin]-11(1H)-one

**Synonyms:** NSC 7520, NSC 23898

**MF:** C<sub>27</sub>H<sub>39</sub>NO<sub>3</sub>

**FW:** 425.6

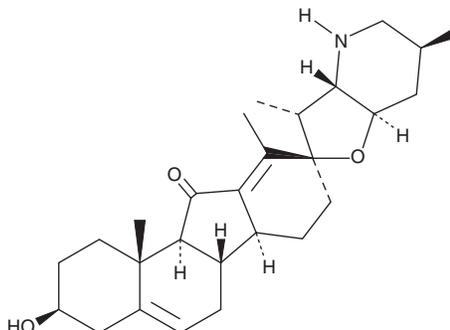
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 251 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥4 years



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

### Laboratory Procedures

Jervine is supplied as a crystalline solid. A stock solution may be made by dissolving the jervine in the solvent of choice. Jervine is soluble in organic solvents such as ethanol and dimethyl formamide, which should be purged with an inert gas. The solubility of jervine in these solvents is approximately 10 and 2 mg/ml, respectively.

Jervine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, jervine should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Jervine has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Jervine is a naturally occurring teratogenic alkaloid that inhibits the sonic hedgehog pathway (IC<sub>50</sub>s = 500-700 nM) *in vitro*.<sup>1</sup> It induces a variety of birth defects *in vivo*, including holoprosencephaly, cyclopia, cebocephaly, exencephaly, and microphthalmia in rat, chicken, and sheep.<sup>2-4</sup> Jervine also reduces lipid accumulation and PPARγ and C/EBPα gene expression in 3T3-L1 adipocytes *in vitro*.<sup>5</sup>

### References

1. Williams, J.A., Guicherit, O.M., Zaharian, B.I., *et al. Proc. Natl. Acad. Sci. U.S.A.* **100**(8), 4616-4621 (2003).
2. Sim, F.R.P., Matsumoto, N., Goulding, E.H., *et al. Teratog. Carcinog. Mutagen.* **3**(2), 111-121 (1983).
3. Cooper, M.K., Porter, J.A., Young, K.E., *et al. Science* **280**(5369), 1603-1607 (1998).
4. Mistretta, C. M., Liu, H.-X., Gaffield, W. *et al. Deve. Biol.* **254**(1), 1-18 (2003).
5. Park, J., Jeon, Y.D., Kim, H.L. *et al. Evid. Based Complement. Alternat. Med.* **2016**(8674397), 1-12 (2016).

#### 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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