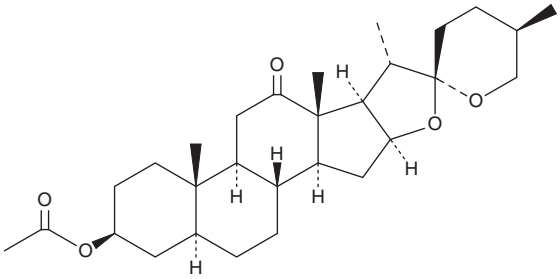
PRODUCT INFORMATION

Hecogenin Acetate

Item No. 25977

CAS Registry No.:	915-35-5
Formal Name:	(3β,5α,25R)-3-(acetyloxy)-spirostan-12-one
Synonym:	NSC 15489
MF:	$C_{29}H_{44}O_5$
FW:	472.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 238 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

Hecogenin acetate is supplied as a crystalline solid. A stock solution may be made by dissolving the hecogenin acetate in the solvent of choice. Hecogenin acetate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of hecogenin acetate in these solvents is approximately 30 mg/ml.

Hecogenin acetate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hecogenin acetate should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Hecogenin acetate has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Hecogenin acetate is a steroid sapogenin and an acetylated form of hecogenin (Item No. 21372) that has anthelmintic and antinociceptive properties.[1-3] It reduces the percentage of mobile larvae in goat fecal cultures containing *Haemonchus*, *Oesophagostomum*, and *Trichostrongylus* nematodes (EC_{50} = 0.49 mg/ml).[1] Hecogenin acetate (5, 10, or 20 mg/kg, i.p.) inhibits development of mechanical hyperalgesia induced by carrageenan, TNF-α, dopamine (Item No. 21992), and prostaglandin E_2 (PGE_2; Item No. 14010) in mice.[2] It also increases latency to tail withdrawal in the tail flick test and has no effect on motor performance in the rotarod test in mice when administered at a dose of 40 mg/kg.[3]

References

1. Santos, A.C.V., Santos, F.O., Lima, H.G., *et al. In vitro* ovicidal and larvicidal activities of some saponins and flavonoids against parasitic nematodes of goats. *Parasitology* **21**, 1-6 (2018).
2. Quintans, J.S., Barreto, R.S., de Lucca, W., Jr., *et al.* Evidence for the involvement of spinal cord-inhibitory and cytokines-modulatory mechanisms in the anti-hyperalgesic effect of hecogenin acetate, a steroidal sapogenin-acetylated, in mice. *Molecules* **19(6)**, 8303-8316 (2014).
3. Gama, K.B., Quintans, J.S., Antoniolli, A.R., *et al.* Evidence for the involvement of descending pain-inhibitory mechanisms in the antinociceptive effect of hecogenin acetate. *J. Nat. Prod.* **76(4)**, 559-563 (2013).

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