

# PRODUCT INFORMATION

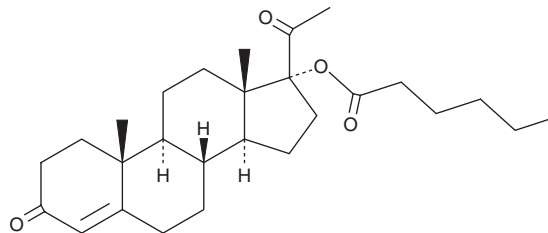


## Hydroxyprogesterone Caproate

Item No. 23978

**CAS Registry No.:** 630-56-8  
**Formal Name:** 17-[(1-oxohexyl)oxy]-pregn-4-ene-3,20-dione  
**Synonyms:** 17-Caproxypregesterone, HPC, Hormofort, Hydroxyprogesterone Hexanoate, NSC 17592, Progesterone Caproate, 17 $\alpha$ -Hydroxy Progesterone Caproate

**MF:** C<sub>27</sub>H<sub>40</sub>O<sub>4</sub>  
**FW:** 428.6  
**Purity:**  $\geq 98\%$   
**UV/Vis.:**  $\lambda_{\text{max}}$ : 240, 244 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

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

Hydroxyprogesterone caproate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hydroxyprogesterone caproate should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Hydroxyprogesterone caproate 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

Hydroxyprogesterone caproate is a synthetic progestogen.<sup>1</sup> *In vivo*, hydroxyprogesterone caproate (3.32 mg/kg) reduces TNF- $\alpha$ -induced hypertension and decreases renal endothelin-1 (ET-1) production in pregnant rats. It reduces hypertension and production of TNF- $\alpha$  and IL-6 induced by reduction in uteroplacental perfusion (RUPP) in pregnant rats.<sup>2</sup> Hydroxyprogesterone caproate also prevents preterm birth induced by L-NAME (Item No. 80210) in pregnant mice.<sup>3</sup> Formulations containing hydroxyprogesterone caproate have been used for the prevention of preterm birth.

### References

1. Keiser, S.D., Veillon, E.W., Parrish, M.R., *et al.* Effects of 17-hydroxyprogesterone on tumor necrosis factor- $\alpha$ -induced hypertension during pregnancy. *Am. J. Hypertens.* **22**(10), 1120-1125 (2009).
2. Veillon, E.W., Jr., Keiser, S.D., Parrish, M.R., *et al.* 17-Hydroxyprogesterone blunts the hypertensive response associated with reductions in uterine perfusion pressure in pregnant rats. *Am. J. Obstet. Gynecol.* **201**(3), 324.e1-324.e6 (2009).
3. Tiboni, G.M., Del Corso, A., and Marotta, F. Progestational agents prevent preterm birth induced by a nitric oxide synthesis inhibitor in the mouse. *In Vivo* **22**(4), 447-450 (2008).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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