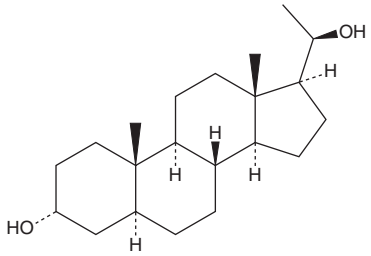
PRODUCT INFORMATION

5α-Pregnane-3α,20β-diol

Item No. 45534

CAS Registry No.:	566-57-4
Formal Name:	(3α,5α,20R)-pregnane-3,20-diol
Synonyms:	3α,20β-Dihydroxy-5α-pregnane
MF:	$C_{21}H_{36}O_2$
FW:	320.5
Purity:	≥98%
Supplied as:	A 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

5α-Pregnane-3α,20β-diol is supplied as a solid. A stock solution may be made by dissolving the 5α-pregnane-3α,20β-diol in the solvent of choice, which should be purged with an inert gas. 5α-Pregnane-3α,20β-diol is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

5α-Pregnane-3α,20β-diol is a positive allosteric modulator (PAM) of the $GABA_A$ receptor ($GABA_AR$) and an active metabolite of progesterone (Item No. 15876).[1,2] It is enzymatically formed from progesterone *via* 5α-pregnane-3,20-dione and 3β-hydroxy-5α-pregnan-20-one intermediates.[2] 5α-Pregnane-3α,20β-diol increases the binding of the $GABA_AR$ agonist muscimol (Item No. 13667) to the high and low affinity sites of the $GABA_AR$ in rat cortical membrane suspensions (EC_{50}s = 33 and 1.7 nM, respectively).[1]

References

1. Goodnough, D.B. and Hawkinson, J.E. Neuroactive steroid modulation of [^{3}H]muscimol binding to the $GABA_A$ receptor complex in rat cortex. *Eur. J. Pharmacol.* **288(2)**, 157-162 (1995).
2. Stanczyk, F.Z., McGough, A., Chagam, L., *et al*. Metabolism of progestogens used for contraception and menopausal hormone therapy. *Steroids* **207**, 109427 (2024).

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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