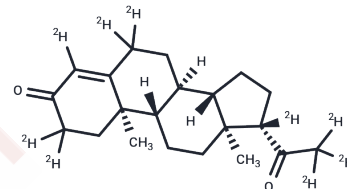


Progesterone-D9

Chemical Properties

CAS No. :	15775-74-3
Formula:	C ₂₁ H ₂₁ D ₉ O ₂
Molecular Weight:	323.52
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Progesterone-D9 is a deuterated isotopologue of progesterone (TMSM-1952), which is a steroidal hormone central to reproductive biology, embryonic development, and neuroendocrine regulation, and hormone replacement and contraceptive therapies. Progesterone-D9 serves as a stable isotope-labeled analog for use in pharmacokinetic and metabolic studies.
Targets(IC50)	Others,Endogenous Metabolite,Progesterone Receptor
In vitro	Progesterone-d9 serves as an internal standard suitable for progesterone detection and isotope dilution methods in the fields of endocrinology, women's health testing, or clinical chemistry via GC/MS or LC/MS.

Solubility Information

Solubility	DMSO: 40 mg/mL (123.64 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.091 mL	15.455 mL	30.910 mL
5 mM	0.6182 mL	3.091 mL	6.182 mL
10 mM	0.3091 mL	1.5455 mL	3.091 mL
50 mM	0.0618 mL	0.3091 mL	0.6182 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

Schindler AE, et al. Classification and pharmacology of progestins. *Maturitas.* 2003 Dec 10;46 Suppl 1:S7-S16.

Zava DT, et al. Estrogen and progestin bioactivity of foods, herbs, and spices. *Proc Soc Exp Biol Med.* 1998 Mar;217(3):369-78.

Komesaroff PA, et al. Effects of wild yam extract on menopausal symptoms, lipids and sex hormones in healthy menopausal women. *Climacteric.* 2001 Jun;4(2):144-50.

Girling JE, et al. Progesterone, but not estrogen, stimulates vessel maturation in the mouse endometrium. *Endocrinology.* 2007 Nov;148(11):5433-41. Epub 2007 Aug 9.

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