Proteins

Pristane

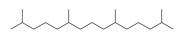
Cat. No.: HY-N7819 CAS No.: 1921-70-6 Molecular Formula: $\mathsf{C}_{19}\mathsf{H}_{40}$ Molecular Weight: 268.52 Target: Others Pathway: Others

Storage: Pure form -20°C 3 years

> 4°C 2 years

In solvent -80°C 6 months

> -20°C 1 month



Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (372.41 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.7241 mL	18.6206 mL	37.2412 mL
	5 mM	0.7448 mL	3.7241 mL	7.4482 mL
	10 mM	0.3724 mL	1.8621 mL	3.7241 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (9.31 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline) Solubility: ≥ 2.5 mg/mL (9.31 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (9.31 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Pristane (Norphytane) is a naturally occurring hydrocarbon oil found in small quantities in many plants, in various marine organisms, and as the most active component of mineral oil ^[1] . Pristane is a non-antigenic adjuvant, and induces MHC class II-restricted, arthritogenic T cells in the rat ^[2] .
In Vitro	Pristane activates CD4 ⁺ $\alpha\beta$ T cells that are MHC class II restricted and arthritogenic ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo Pristane activates CD4⁺ alpha beta T cells that are MHC class II restricted and arthritogenic in vivo^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Naive recipient rats (DA) $^{[2]}$	
Dosage:	500 μL of Pristane oil	
Administration:	Intradermal injection	
Result:	Both CD4 ⁺ , CD8 ⁺ $\alpha\beta$ T cells and B cells significantly expand in draining lymph nodes until day 6 after injection, whereafter the CD4 ⁺ $\alpha\beta$ T cells continue to expand until day 12 after injection.	

REFERENCES

- [1]. J J Turner, et al. Krypton Fluoride: Preparation by the Matrix Isolation Technique. Science. 1963 May 31;140(3570):974-5.
- [2]. Jens Holmberg, et al. Pristane, a non-antigenic adjuvant, induces MHC class II-restricted, arthritogenic T cells in the rat. J Immunol. 2006 Jan 15;176(2):1172-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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