Product Data Sheet

Product Name: Hydroxylapatite
Cat. No.: GC61826

Chemical Properties

Cas. No.	1306-06-5		
SMILES	O[Ca][Ca][Ca][Ca][Ca]P1(OOO1)=O.O=P2(P3(OOO3)=O)OOO2		
Formula	$Ca_5HO_{13}P_3$	M.Wt	502.31
Solubility	DMSO : < 1 mg/mL (insoluble or slightly soluble); Ethanol : < 1 mg/mL (insoluble)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

$$Ca_5(OH)(PO_4)_3$$

Background

Hydroxylapatite (Hydroxyapatite) is a naturally occurring calcium phosphate which is a major mineral component of bone and teeth bones. Nano-scale Hydroxylapatite particles are increasingly being used as carriers for controlled and targeted delivery of bioactive agents like drugs, proteins, and nucleic acids due to their high porosity, negative charge, and biodegradability [1].

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

[1]. Moumita Rakshit, et al. Hydroxyapatite Particles Induced Modulation of Collagen Expression and Secretion in Primary Human Dermal Fibroblasts. Int J Nanomedicine. 2020; 15: 4943-4956.
[2]. Yongjia Liu, et al. Hydroxyapatite-Bovine Serum Albumin-Paclitaxel Nanoparticles for Locoregional Treatment of Osteosarcoma. Adv Healthc Mater. 2020 Nov 9;e2000573.

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