Product Data Sheet

Hydroxylapatite

Cat. No.: HY-D0835 CAS No.: 1306-06-5 Ca₅HO₁₃P₃ Molecular Formula: 502.31 Molecular Weight:

Target: **Biochemical Assay Reagents**

Pathway: Others

Powder Storage: -20°C 3 years

2 years

In solvent -80°C 6 months

> -20°C 1 month

 $Ca_5(OH)(PO_4)_3$

SOLVENT & SOLUBILITY

In Vitro

Ethanol: 1 mg/mL (1.99 mM; ultrasonic and warming and heat to 60°C)

DMSO: < 1 mg/mL (ultrasonic; warming; heat to 60°C) (insoluble or slightly soluble)

| Preparing Stock Solutions | Solvent Mass Concentration | 1 mg | 5 mg | 10 mg |
|------------------------------|-------------------------------|-----------|-----------|------------|
| | 1 mM | 1.9908 mL | 9.9540 mL | 19.9080 mL |
| | 5 mM | | | |
| | 10 mM | | | |

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

BIOLOGICAL ACTIVITY

Description

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 agents, proteins, and nucleic acids due to their high porosity, negative charge, and biodegradability [1].

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.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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