

Certificate of Analysis

Product name	HAp (CORE-D)	Lot No.	Sample
Quantity	5 g	Grade	-
Date of Manufacture	Sample	Date of Issue	-

Test items	Test Method	Specification	Results
Appearance	Sensory test	White powder	White powder
Odor	Sensory test	Odorless	Odorless
Morphology	SEM observation	Spherical	Spherical
pH	Internal specifications	6.5 – 8.5	≤ 8
Impurities			
1) Arsenic (As)	ICP measurement	≤ 3 ppm	≤ 1 ppm
2) Cadmium (Cd)		≤ 5 ppm	≤ 0.5 ppm
3) Mercury (Hg)		≤ 5 ppm	≤ 0.05 ppm
4) Lead (Pb)		≤ 30 ppm	≤ 1 ppm
Total heavy metals		≤ 30 ppm	Conform
Particle porosity	Mercury Intrusion Porosimetry (MIP)	0-3 %	1 %
HAp content	XRD analysis	≥ 95 %	Conform
CaO content	XRD analysis	≤ 1 %	Not detected
Foreign phases content (α-TCP, β-TCP, TTCP, CaO)	XRD analysis	≤ 5 %	Not detected
Ca/P ratio	XRD analysis	1.66 – 1.71	1.67
Endotoxins	Gel-clot LAL test	< 0.5 Eu/ml	Conform

Shelf Life 5 years from the date of manufacture.

Storage Store in a cool, dry place. Avoid exposure to heat and moisture.

COA Issuer JSTechLab

Notice The analytical results are provided for sample submission purposes only.