Fisher Scientific L.L.C. US
1 Reagent Lane
Fair Lawn,
NJ 07410, United States of America

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek Global Certificate Number. CERT-0120633

Catalogue Number	41121
Lot Number	B0157858
Description	HEPARIN SODIUM
CAS Number	9041-08-1
Quality Test/Release Date	04/Nov/2025
Suggested retest date	23/Oct/2027
Country of Origin	United States
Declaration of Origin	Animal - Porcine
BSE/TSE	Derived from porcine intestinal mucosa from healthy pigs that received and passed ante- and post-mortem verification of health by the government veterinarian. The manufacturing process has been validated as being capable of inactivating viruses. TSE has not been found in swine related tissues.

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White to off white powder.
APPEARANCE OF SOLUTION (5000 IU/ML WATER)	Clear Solution	IN CLEAR	CLEAR
HEAVY METALS (as Pb)	ppm	<= 30	<30
IDENTIFICATION	PASS/FAIL	IN PASS TEST	PASS TEST
INFRARED SPECTRUM	PASS/FAIL	IN PASS TEST	PASS TEST
LOSS ON DRYING @60 C FOR 4 HOURS	%	<= 8	1
NMR (1H-NMR)-OVERSULFATED CHONDROITIN SULFATE	PASS/FAIL	IN ABSENT	ABSENT
NUCLEOTIDE	%	<= 0.2	<0.2
PH OF A 1% SOLUTION		Inclusive Between 5.5 - 8.0	6.5
POTENCY (ASSAY)	UNITS/MG	>= 150	203
PROTEIN	%	<= 1.0	<1.0
RESIDUE AFTER IGNITION	%	Inclusive Between 30 - 43	39



Harout Sahagian
QC Manager

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research use or further manufacturing. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.