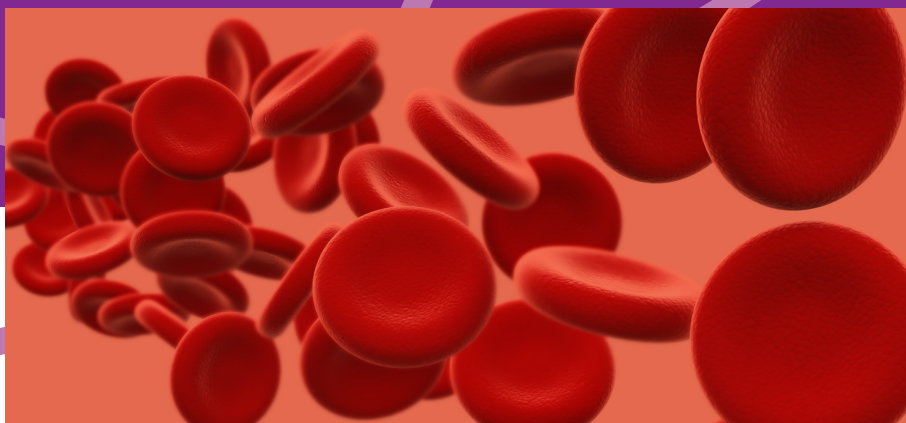




HEPARIN SODIUM EP/USP

AN ESSENTIAL ANTICOAGULANT

- Animal-tissue derived molecule, extracted mainly from the porcine intestinal mucosa.
- Anticoagulant effects proven over 100 years.⁽¹⁾



**MOST USED
IN THE WORLD**



**ACTIVE SUBSTANCE OF THE MOST USED
ANTICOAGULANT AND ANTITHROMBOTIC
DRUGS IN THE WORLD.^(1,2)**

Applications

Antithrombotic
medicinal products

Anti-atherosclerotic
medicinal products

Medicinal products for
hemorrhoids treatment

Topical medicinal products
for ulcer treatment

Anticoagulant medicinal
products

Anticoagulant coating
for medical devices

Medicinal products for
wound management

Porcine heparin vs Bovine heparin

- Porcine heparin has greater anticoagulant and antiprotease activities than bovine heparin.⁽³⁾

**HELM'S HEPARIN IS EXTRACTED
FROM THE PORCINE INTESTINAL
MUCOSA**

OUR HEPARIN COMPETITIVE EDGES

Competitive edges



SAFETY

HELM works with authorized farms that are properly inspected and cleared by veterinaries before use.



FULL TRACEABILITY

HELM ensures safety, quality and full traceability along the whole supply chain of Heparin. Our processes are designed to minimize any possibility of biological risk.



FULL TECHNICAL SUPPORT

Technical experts dedicated to Heparin and technical documentation ready to be sent.



EXPERTISE

HELM provides its partners with market intelligence about future price development.

Key characteristics

1. Shelf life of 36 months
2. Package of 5kg and 10kg
3. Batch sizes of 25000 – 28000 mega



CEP



USDMF



WRITTEN CONFIRMATION



AUDIT REPORT AVAILABLE

Supply chain



PIG FARMER

Healthy pigs that are inspected by vets and come only from authorized farms



SLAUGHTER HOUSE

The pig intestines come from government-inspected slaughterhouses



INTESTINES

Fresh intestines are inspected



MUCOSA

The mucosa is separated from the rest of the intestine



CRUDE HEPARIN

API Intermediate



HEPARIN SODIUM

Highest quality API fully compliant with the most demanding international quality standards

HELM is one of the world's major independent chemicals marketing enterprises with 120 years of history and more than 100 subsidiaries, sales offices, and participations in over 30 countries.

(1) Oduah E I., et al. Heparin: Past, Present, and Future. *Pharmaceuticals (Basel)*, 2016 Sep; 9(3): 38. (2) Qiu M., et al. Pharmacological and clinical application of heparin progress: An essential drug for modern medicine. *Biomedicine & Pharmacotherapy*, Volume 139, July 2021, 111561 (3) Kouta A., et al. Comparative Pharmacological Profiles of Various Bovine, Ovine, and Porcine Heparins; *Clin Appl Thromb Hemost* . Jan-Dec 2019; 25:1076029619889406.



Want to know more about HEPARIN?

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