

Certificate of Analysis

Product Name:	Heparin (calcium (MW 3600-5000)	
Cat. No.:	GD19021	L	
Batch No.:	1		
PHYSICAL AND CHEMICAL PROPERTIES		S	
Cas. No.:	37270-89	37270-89-6	
Molecular Weight:	3600-500	3600-5000(Average)	
Storage:	2-8°C		
ANALYTICAL DATA			
Appearance:		A solid	
AVERAGE MW:		4650	
Percentage of mass weight(<2000):		10%	
Infrared Spectrum:		Conforms to Structure	
Percentage of mass weight(2000-4000):		41%	
SO ₄ ²⁻ /COO ⁻ :		≥1.8	
PH(0.1g/10ml H ₂ O):		6.8	
NITROGEN:		2.5%	
Loss on Drying:		0.6846	
Free sulfates:		≤0.5%	
Bacterial endotoxin:		≤0.01EU/IU of anti-factor-Xa activity	
Percentage of mass weight(2000-8000):		95%	
Microbial contamination(TAMC):		≤100CFU/g	
Microbial contamination(TYMC):		≤10CFU/g	
Anti-factor-Xa activity(dried substance):		110 IU/mg	
Conclusion:		The product has been tested and complies with the given specifications.	

Caution: Product has not been fully validated for medical applications. For research use only. Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com Address: 10292 Central Ave. #205, Montclair, CA, USA