Product Data Sheet

Product Name: Fibrinogen (Bovine)
Cat. No.: GC64740

Chemical Properties

Cas. No.	9001-32-5		
Formula		M.Wt	
Solubility	H_2O : < 0.1 mg/mL (insoluble)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Fibrinogen (Bovine)		

Background

Fibrinogen (Bovine) is a soluble plasma glycoprotein synthesized in hepatic parenchymal cells with a molecular weight of approximately 340kDa[1]. Fibrinogen (Bovine) can be converted into fibrin by thrombin and plays a core role in the coagulation process. Its structure is highly similar to human fibrinogen and is widely used in biomedical research[2]. Fibrinogen (Bovine) can be used as an extracellular matrix (ECM) protein to promote osteogenic differentiation of human mesenchymal stem cells (hMSC)[3]. Fibrinogen (Bovine) can enhance the proliferation and survival of centroblast cell lines[4]. Fibrinogen (Bovine) can induce endothelial cell permeability, regulate the activation of NF-κB in endothelial cells, and upregulate the expression of monocyte chemoattractant protein-1 (MCP-1) and IL-8 mRNA[5, 6].

References:
[1] Meredith S. Biotechnology for detecting oxidative modifications to fibrinogen[D]. Aston University, 2016.
[2] Weisel J W. Fibrinogen and fibrin[J]. Advances in protein chemistry, 2005, 70: 247-299.
[3] Linsley C, Wu B, Tawil B. The effect of fibrinogen, collagen type I, and fibronectin on

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mesenchymal stem cell growth and differentiation into osteoblasts[J]. Tissue Engineering Part A, 2013, 19(11-12): 1416-1423.
[4] Lefevre E A, Hein W R, Stamataki Z, et al. Fibrinogen is localized on dark zone follicular dendritic cells in vivo and enhances the proliferation and survival of a centroblastic cell line in vitro[J]. Journal of Leucocyte Biology, 2007, 82(3): 666-677.
[5] Tyagi N, Roberts A M, Dean W L, et al. Fibrinogen induces endothelial cell permeability[J]. Molecular and cellular biochemistry, 2008, 307: 13-22.
[6] Guo M, Sahni S K, Sahni A, et al. Fibrinogen regulates the expression of inflammatory chemokines through NF-κB activation of endothelial cells[J]. Thrombosis and haemostasis, 2004, 92(10): 858-866.