

Heparan Sulfate

Chemical Properties

CAS No. :	9050-30-0
Formula:	C ₁₂ H ₁₉ NO ₂ O ₅ (monomer)
Molecular Weight:	
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	Heparan sulfate is a natural product, a linear polysaccharide. Heparan sulfate occurs as a proteoglycan (HSPG) that is tightly attached to cell surface or extracellular matrix proteins.
Targets(IC50)	FGFR,Endogenous Metabolite,Wnt/beta-catenin
In vitro	METHODS: Breast cancer cells MDA-MB231 were treated with Heparan sulfate (20 µg/mL) for 24 h and detected by Fluorescence microscopy. RESULTS: Cell spreading was enhanced and the average spreading cell area approximately doubled in the presence of Heparan sulfate. Exogenous Heparan sulfate blocked cell invasion and matrix degradation. [1]
In vivo	METHODS: To assay anti-tumor activity in vivo, Heparan sulfate (0.8 mg/kg) was administered to SCID-hu mice injected with bone marrow aspirates from myeloma patients twice daily, once intraperitoneally and once subcutaneously, for four weeks. RESULTS: Treatment with Heparan sulfate significantly inhibited primary tumor growth in a human severe combined immunodeficiency (SCID-hu) myeloma model. [2]

Solubility Information

Solubility	DMSO: Insoluble H ₂ O: 100 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

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Yang Y, et al. The syndecan-1 heparan sulfate proteoglycan is a viable target for myeloma therapy. *Blood*. 2007 Sep 15;110(6):2041-8.

Yamamoto S, et al. Heparan sulfate on intestinal epithelial cells plays a critical role in intestinal crypt homeostasis via Wnt/ β -catenin signaling. *Am J Physiol Gastrointest Liver Physiol*. 2013 Aug 1;305(3):G241-9.

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