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Heparan Sulfate Glycosaminoglycan Mimetic M402

National Cancer Institute

Source

National Cancer Institute. *Heparan Sulfate Glycosaminoglycan Mimetic M402*. NCI Thesaurus. Code C102749.

A low molecular weight heparin derivative and heparan sulfate proteoglycan (HSPG) mimetic with no or minimal anticoagulant activity and potential antineoplastic activities. Upon administration, M402 mimics HSPGs by binding to and inhibiting various heparin-binding growth factors, chemokines, and cytokines such as VEGF, HGF, FGF2, SDF-1a, heparanase and P-selectin all of which are essential for tumor angiogenesis and metastasis to occur. This inhibits heparin binding growth factor-mediated signaling and disrupts tumor-stromal interactions eventually leading to an inhibition of angiogenesis and tumor cell progression. In addition, M402 may enhance the cytotoxic effect of other chemotherapeutic agents.