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Muparfostat

National Cancer Institute

Source

National Cancer Institute. Muparfostat. NCI Thesaurus. Code C38690.

A mixture of highly sulfated, monophosphorylated mannose oligosaccharides, derived from the extracellular phosphomannan of the yeast Pichia (Hansenula) holstii, with potential antiangiogenic activity. Muparfostat inhibits the endo-beta-D-glucuronidase heparanase, which may interfere with the heparanase-mediated degradation of heparan-sulfate proteoglycans in extracellular matrices, an important step in the metastatic process. This agent may also bind with high affinity to the heparan sulfate-binding domains of vascular endothelial growth factor (VEGF) and fibroblast growth factors 1 and 2, thereby reducing their functional activities and inhibiting VEGF and FGF stimulation of tumor angiogenesis. Increased heparanase activity has been implicated in tumor angiogenesis and metastasis.