

Title (en)

COMPLEXES OF DERMATAN SULFATE AND DRUGS, GIVING IMPROVED PHARMACOKINETICS

Title (de)

KOMPLEXE VON DERMATANSULFAT UND MEDIKAMENTEN, MIT VERBESSERTER PHARMAKOKINETIK

Title (fr)

COMPLEXES DE SULFATE DE DERMATAN ET DE MEDICAMENTS, AMELIORANT LA PHARMACOCINETIQUE

Publication

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Application

EP 95907242 A 19941222

Priority

US 9414776 W 19941222

Abstract (en)

[origin: WO9619242A1] A drug carrier composition comprising a drug complexed with dermatan sulfate is disclosed. The drug is preferably an antitumor drug and may be taxol, a peptide onco-agent or vincristine. The most preferred antitumor drug is doxorubicin. The dermatan sulfate is essentially purified dermatan sulfate with a sulfur content of up to 9 % (w/w) and with selective oligosaccharide oversulfation. The compositions are administered in a fashion that allows efficient vascular access and induced the following in vivo effects: 1) rapid, partial or total endothelial envelopment of the drug (diagnostic) carrier; 2) sequestration of the carrier and protection of the entrapped agent from blood vascular clearance at an early time (2 minutes) when the endothelial pocket which envelops the carrier still invaginates into the vascular compartment; 3) acceleration of the carrier's transport across and/or through the vascular endothelium or subendothelial structures into the tissue compartment (intestitium); and 4) improvement of the efficiency with which the drug migrates across the endothelium, or epi-endothelial or subendothelial barriers, such that a lower total drug dose is required to obtain the desired effect relative to that required for standard agents. Analogous tissue uptake is described for transepithelial migration into the lungs, bladder and bowel.

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