ABSTRACT

This invention provides: a pharmaceutical composition for use in cancer treatment comprising, as an active ingredient, a compound represented by the following formula I:

$C\text{-}[\text{-}CH_2\text{-}O\text{-}(\text{-}CH_2CH_2\text{-}O\text{-})_n\text{-}X^1\text{-}CHR^1\text{-}O\text{-}CO\text{-}NR^2\text{-}CH_2\text{-}X^2]_4$ (I)

wherein $X^1\text{-}CHR^1\text{-}O\text{-}CO\text{-}NR^2$ represents a linker, X^1 represents a spacer, R^1 represents a C1-C4 alkyl group that may be substituted, R^2 represents a phenyl group or a substituted phenyl group, X^2 represents SN-38, and n is an integer of 200 to 1,000, and wherein the pharmaceutical composition is usable with administration and dosage in which a single dose of about 0.01 μmol/kg body weight to about 11 μmol/kg body weight is parenterally administered to a subject having cancer at a frequency of once a week, every other week over at least 2 weeks, and has no Irinotecan-like side effects and provides cancer growth inhibiting activity equivalent to or larger than that of Irinotecan when used at a dose as low as 1/10 (in a molar ratio) or less as compared with Irinotecan; and a method for treating a cancer using the composition.