

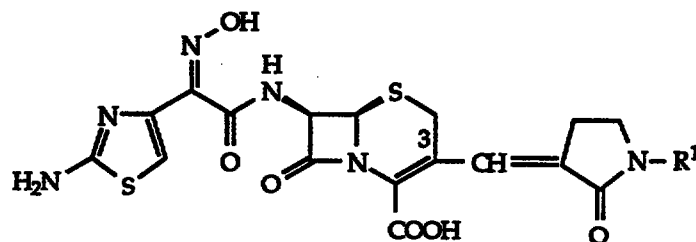
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Abstract

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The present invention relates to cephalosporin derivatives of the general formula I



I

10 wherein

15 R^1 is a group selected from 2-, 3- and 4-hydroxyphenyl, 2- and 3-methoxyphenyl, 4-carboxyphenyl, 4-carbamoylphenyl, 3-trifluoromethylphenyl, 2- and 3-fluorophenyl, 3-nitrophenyl, 3-fluoro-4-hydroxyphenyl, 2-fluoro-4-hydroxyphenyl, 3-fluoro-2-hydroxyphenyl, 3-, 4-dihydroxyphenyl, benzyl, -CHR-phenyl, 3-hydroxybenzyl, 4-aminobenzyl, 2-, 3- and 4-fluorobenzyl, 2-, 3- and 4-methoxybenzyl, 4-nitrobenzyl, 4-carboxybenzyl, 4-trifluoromethylbenzyl, 1-naphthyl and 2-naphthyl, all hydroxy, amino, carboxy and carbamoyl substituents optionally being substituted, or is pyridinyl
20 mono-substituted with halogen, pyrimidyl, pyrazinyl di-substituted with lower alkyl, pyridazinyl mono-substituted with halogen, piperidinyl in which the amino group may be substituted by an acyl group, thiadiazolyl, oxo-tetrahydrofuranyl, thiophenyl mono-substituted with lower alkoxy carbonyl or carbamoyl, tetrazolyl-
25 lower alkyl, tetrahydrofuranyl-lower alkyl, thiophenyl-lower alkyl or benzimidazolyl-lower alkyl; and

R is carboxy or esterified carboxy;

readily hydrolyzable esters thereof, pharmaceutically acceptable salts of said compounds and hydrates of the compounds of formula I and of their esters
30 and salts, as well as the their use and the process for manufacturing such compounds.

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