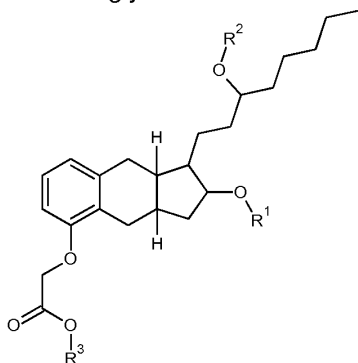


Claims

1. A glycoside derivative of treprostinil of general formula I,



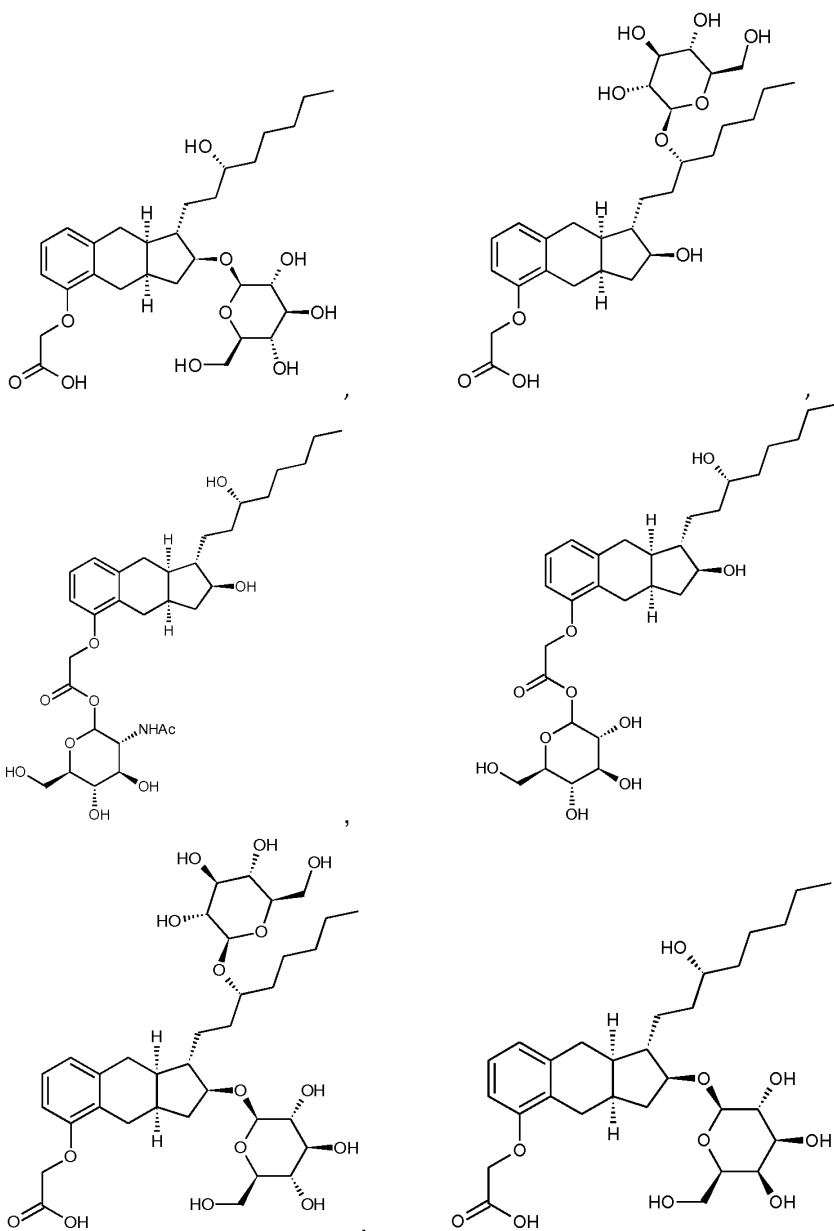
wherein

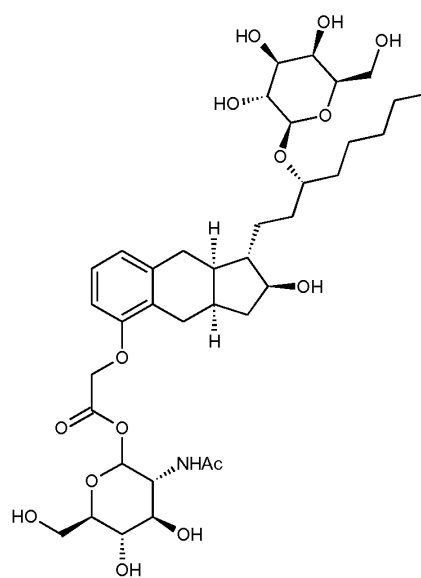
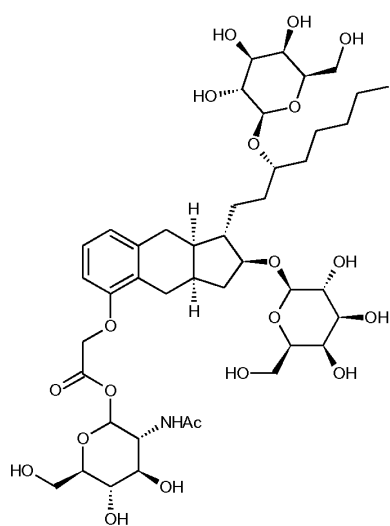
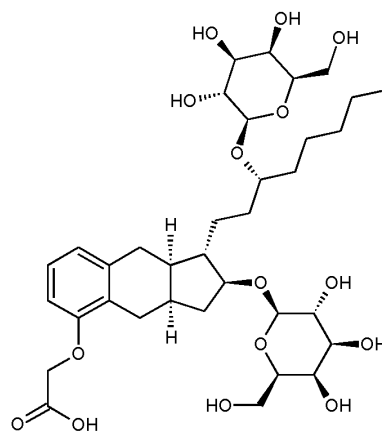
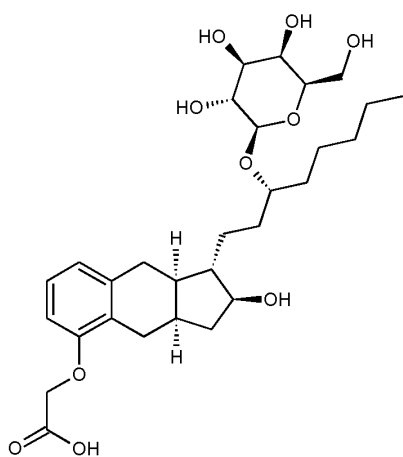
R¹, R² and R³ are independently from one another H or a carbohydrate, and wherein at least one of R¹, R² and R³ is not H.

2. The treprostinil derivative according to claim 1, wherein the carbohydrate is a monosaccharide, disaccharide, oligosaccharide, an amino sugar or an alditol.
3. The treprostinil derivative according to claim 2, wherein the monosaccharide is a pyranoside or a furanoside.
4. The treprostinil derivative according to claim 2, wherein the carbohydrate is selected from hexoaldoses like allose, altrose, glucose, mannose, gulose, idose, galactose and talose, from hexoketoses like psicose, fructose sorbose and tagatose, from aldopentoses like ribose, arabinose, xylose, and lyxose, from ketopentoses like ribulose and xylulose, or from hexosamines like galactosamine, glucosamine, mannosamine, neuramine acid, muramine acid, and N-acetylglucosamine.
5. The treprostinil derivative according to claim 4, wherein the pyranoside is glucose or galactose.
6. The treprostinil derivative according to any one of claims 1 to 5, wherein said treprostinil derivative has a plasma half-life of at least 60 min, specifically 70 min, 80 min, 90 min, specifically of 100 min $\pm$ 20 min.
7. The treprostinil derivative according to any one of claims 1 to 5, wherein said treprostinil derivative is being cleaved in plasma in 20 h $\pm$ 5 h for at least 50%, specifically at least 60%, 70%, 80%, more specifically at least 90%.
8. A composition comprising a glycoside derivative of treprostinil according to any of claims 1 to 7.

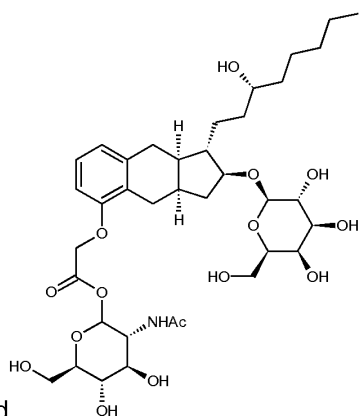
9. A pharmaceutical composition comprising a glycoside derivative of treprostinil according to any of claims 1 to 7.

10. The pharmaceutical composition according to claim 9, wherein the treprostinil derivative is selected from



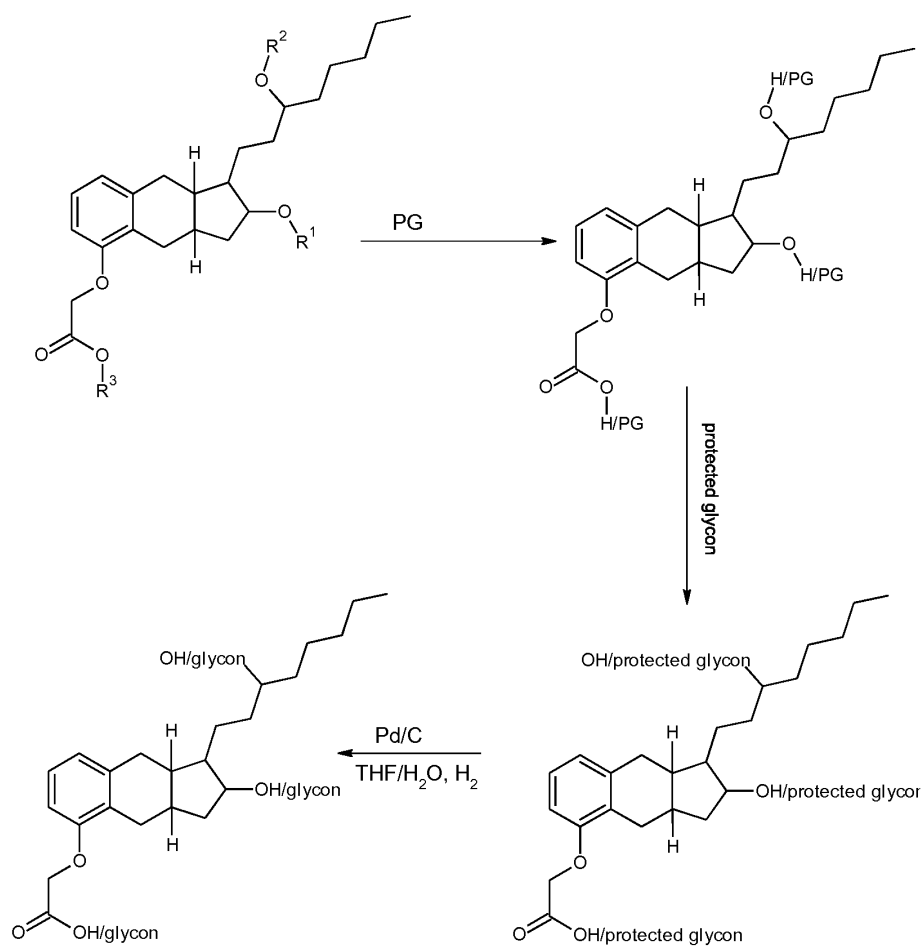


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and

11. A method for producing a compound of formula I, wherein at least one of R¹, R², or R³ is H, comprising the following reaction steps:



R¹, R² and R³ are as defined in claim 1.

12. The method according to claim 11, wherein the protecting group is benzyl, benzyl ether selected from the group consisting of substituted methyl ether, substituted ethyl ether, substituted benzyl ether, various silyl ethers, ester selected from the group consisting of acetate, substituted acetate, benzoate, carbonate, sulfonate, cyclic acetale, acetale from ketones, ester, amide, hydracide, benzyl ester.
13. The method according to claim 11 or 12, wherein the glycoside is a pyranoside, specifically a glucose or a galactose.
14. An intermediate compound of formula II,

