

Title (en)

INSECT CELL ENZYMES WITH  $\alpha$ -GALACTOSYLTRANSFERASE ACTIVITY AND THEIR USES

Title (de)

ENZYME MIT ALPHA-GALACTOSYLTRANSFERASE AKTIVITÄT VON INSEKTZELLEN, UND DEREN ANWENDUNGEN

Title (fr)

ENZYMES A ACTIVITE ALPHA-GALACTOSYLTRANSFERASE DE CELLULES D'INSECTES, ET LEURS UTILISATIONS

Publication

**EP 1092012 A1 20010418 (FR)**

Application

**EP 99926565 A 19990629**

Priority

- FR 9901562 W 19990629
- FR 9808228 A 19980629

Abstract (en)

[origin: FR2780413A1] Use of enzymes (I) with alpha -galactosyltransferase (aGT) activity derived from insect cells, for the enzymatic production of alpha -galactosylated compounds (II) by the transfer of galactose (Gal) on to a terminal Gal residue of a selected substrate, is new. Independent claims are also included for the following: (a) the cell line CNCM I-2045, from Mamestra brassicae; (b) cell extract with aGT, particularly alpha -1,4-aGT, activity, produced from insect cells; (c) enzymatic production of (II) by reacting UDP (uridine-diphosphate)-Gal with a substrate in presence of (I), optionally followed by purification; (d) compounds of formula (IIa); (e) pharmaceutical composition containing (IIa) and a vehicle, optionally also one or more antibiotics; and (f) food composition containing (IIa). Gal alpha 1-nGal beta 1-no-X-R (IIa) n0 = 1-4 or 6 and is the position on residue X of the carbon atom carrying a hydroxy group that binds to Gal beta 1, particularly 3 or 4; n = position of carbon atom on second Gal that carries the hydroxy group which binds to transferred Gal alpha 1; X = oside, particularly the residue of Gal, glucose (Glc), N-acetyl-D-galactosamine (GalNAc) or 2-O-acetyl-D-galactopyranose; R = hydrogen, mono- or oligo-saccharide, oside or oligoside carrying an aglycone at its reducing end, an aglycone (e.g. benzyl, phenyl (optionally substituted, particularly 4-nitrophenyl) or 1-10C alkyl, particularly 1-7C linear alkyl), glycoprotein (preferably substituted by O-glycans such as asialo-fetuin), amino acid, peptide, protein or neoglycoprotein (preferably bovine serum albumin coupled to an oligoside), glycolipid (particularly lactosylceramide or gangliosides GD3 or GM3), a lipid, a ceramide, or a multivalent non-immunogenic carrier (preferably derived from polyacrylamide or polylysine in which sidechains are substituted by Gal beta 1-n0-X).

IPC 1-7

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IPC 8 full level

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