Claims

1. Bacterial Cell to be stably cultured in a medium, which cell is adjusted for the production of fucosyllactose, the cell being transformed to comprise at least one nucleic acid sequence coding for an enzyme involved in oligosaccharide synthesis, wherein the enzyme is a fucosyltransferase,

   characterized in that

   the bacterial cell in addition is transformed to comprise at least one nucleic acid sequence coding for a protein of the Sugar Efflux Transporter (SET) family, which exports fucosyllactose from cytosol of said bacterial cell, or a functional homolog of the protein.

2. Thebacterial Cell according to claim 1, characterized in that the bacterial cell is an *Escherichia coli* cell.

3. Thebacterial Cell according to anyone of claims 1 or 2, characterized in that the Sugar Efflux Transporter is SetA .

4. Thebacterial Cell according to anyone of claims 1 to 3, characterized in that it is further transformed to comprise at least one nucleic acid sequence coding for a protein facilitating or promoting the import of educts required for oligosaccharide synthesis, wherein the protein is selected from the group consisting of lactose transporter, fucose transporter, sialic acid transporter, galactose transporter, mannose transporter, N-acetylglucosamine transporter, *N*-acetylgalactosamine transporter, ABC-transporter, transporter for a nucleotide- activated sugar and transporter for a nucleobase, nucleoside or nucleotide.

5. The bacterial Cell according to anyone of claims 1 to 64, characterized in that it is further transformed to comprise at least one nucleic acid sequence coding for a protein selected from the group consisting of nucleotidyltransferase, guanylyl transferase, uridylyl transferase, Fkp, L-fucose kinase, fucose-l- phosphate guanylyltransferase, CMP-sialic acid synthetase, galactose kinase, galactose-1-

Claims

1. Bacterial Cell to be stably cultured in a medium, which cell is adjusted for the production of fucosyllactose, the cell being transformed to comprise at least one nucleic acid sequence coding for an enzyme involved in oligosaccharide synthesis, wherein the enzyme is a fucosyltransferase,

   characterized in that

   the bacterial cell in addition is transformed to comprise at least one nucleic acid sequence coding for a protein of the Sugar Efflux Transporter (SET) family, which exports fucosyllactose from cytosol of said bacterial cell, or a functional homolog of the protein.

2. The bacterial Cell according to claim 1, characterized in that the bacterial cell is an *Escherichia coli* cell.

3. The bacterial Cell according to anyone of claims 1 or 2, characterized in that the Sugar Efflux Transporter is SetA .

4. The bacterial Cell according to anyone of claims 1 to 3, characterized in that it is further transformed to comprise at least one nucleic acid sequence coding for a protein facilitating or promoting the import of educts required for oligosaccharide synthesis, wherein the protein is selected from the group consisting of lactose transporter, fucose transporter, sialic acid transporter, galactose transporter, mannose transporter, N-acetylglucosamine transporter, *N*- acetylgalactosamine transporter, ABC-transporter, transporter for a nucleotide- activated sugar and transporter for a nucleobase, nucleoside or nucleotide.

5. The bacterial Cell according to anyone of claims 1 to 4, characterized in that it is further transformed to comprise at least one nucleic acid sequence coding for a protein selected from the group consisting of nucleotidyltransferase, guanylyl transferase, uridylyl transferase, Fkp, L-fucose kinase, fucose-l- phosphate guanylyltransferase, CMP-sialic acid synthetase, galactose kinase, galactose-1-