CLAIMS

1. A method of inhibiting isomerization of a reducing saccharide in an aqueous solution containing said reducing saccharide upon a thermal treatment for sterilizing said aqueous saccharide solution, the method comprising the step of acidifying the aqueous saccharide solution prior to the thermal treatment, wherein the aqueous saccharide solution is acidified by adding at least one acid to said aqueous saccharide solution to a pH having a value of between 1 to 6; and wherein the thermal treatment comprises heating the aqueous saccharide solution to a temperature in the range of 115 °C to 150 °C and keeping the temperature for up to 60 minutes; autoclaving the aqueous saccharide solution at 121.1 °C for 15 to 30 minutes; heating the aqueous solution to a temperature of 130 °C to 150 °C and holding the temperature for up to 5 minutes; or subjecting the aqueous solution to a temperature of between 71.5 °C to 74 °C for 15 to 30 seconds, wherein the reducing saccharide is lactose and lactose is present in the aqueous solution in a concentration of ≥ 0.66 M.

2. The method according to claim 1, wherein the aqueous saccharide solution is acidified to a pH having a value of between 2 to 5, and more preferably to a pH having a value of between 3 to 4.

3. The method according to claim 1 or 2, wherein the acid is an inorganic acid, preferably selected from the group consisting of hydrochloric acid, sulfuric acid, sulfurous acid, phosphoric acid, boric acid, hydrofluoric acid, hydrobromic acid, perchloric acid, hydroiodic acid and carbonic acid.

4. The method according to claim 1 or 2, wherein the acid is an organic acid, preferably selected from the group consisting of monocarboxylic acids, dicarboxylic acids, and tricarboxylic acids.

5. Use of a sterile aqueous solution containing at least one reducing saccharide obtained by a method as claimed in any one of claims 1 to 4 , in a method of biotechnological production of a human milk oligosaccharide , the method comprising the steps of:
   - providing at least one cell that is capable of producing the human milk oligosaccharide;
   - cultivating the at least one cell in a fermentation broth containing and/or being supplemented with the sterile aqueous solution, wherein the reducing saccharide is

present in the sterile solution in a concentration of ≥ 0.66 M, for the at least one cell to produce the human milk oligosaccharide; and

- optionally purifying the human milk oligosaccharide from the fermentation broth.

6. The use according to claim 5, wherein the reducing saccharide is present in the sterile aqueous solution in a concentration of ≥ 1 M.

7. The use according to claim 5 or 6, wherein the human milk oligosaccharide is produced in an amount of ≥ 100 g/L in the fermentation broth, preferably in an amount of ≥ 150 g/L in the fermentation broth, more preferably in an amount of ≥ 200 g/L in the fermentation broth at the end of the fermentation process.

8. The use according to any one of claims 5 to 7, wherein the human milk oligosaccharide is preferably selected from the group consisting of 2'-fucosyllactose, 3-fucosyllactose, 2',3-difucosyllactose, lacto-*N*-triose II, lacto-*N*-tetraose, lacto-*N*-*neo*tetraose, lacto-*N*-fucopentaose I, lacto-*N*-*neo*fucopentaose I, lacto-*N*-fucopentaose II, lacto-*N*-fucopentaose III, lacto-*N*-fucopentaose V, lacto-*N*-*neo*fucopentaose V, lacto-*N*-difucohexaose I, lacto-*N*-difucosylhexaose II, *para*-Lacto-*N*-fucosylhexaose, fucosyl-lacto-*N*-sialylpentaose b, fucosyl-lacto-*N*-sialylpentaose c, fucosyl-lacto-*N*-sialylpentaose c, disialyl-lacto-*N*-fucopentaose, 3-fucosyl-3'-sialyllactose, 3-fucosyl-6'-sialyllactose, lacto-*N*-*neo*difucohexaose I,
3'-sialyllactose, 6'-sialyllactose, sialyllacto-*N*-tetraoses LST-a, LST-b, LST-c, and disialyllacto-*N*-tetraose.