

CLAIMS

1. A method for crystallizing 2'-FL comprising:
 - 1) providing an aqueous solution or syrup comprising 2'-FL at a temperature of 35-60 °C,
 - 5 2) at the same temperature, adding a 10-30 wt% suspension of crystalline 2'-FL in acetic acid to the aqueous solution or syrup comprising 2'-FL, thereby generating a slurry so that the amount of acetic acid in the slurry, after addition of the suspension of crystalline 2'-FL in acetic acid is 1.5-4 wt%,
 - 10 3) at a temperature of 35-60 °C, adding acetic acid to the slurry to obtain a crystalline mass, wherein the amount of acetic acid added in is calculated so that the acetic acid to water weight fraction in the crystalline suspension at the end of the addition of the acetic acid is 4-6, and
 - 4) filtering the crystalline 2'-FL from the crystalline mass.
2. The method according to claim 1, wherein the crystalline 2'-FL is polymorph II.
- 15 3. The method according to claim 1 or 2, wherein the acetic acid is glacial acetic acid.
4. The method according to any of the claims 1 to 3, wherein total solid content of the aqueous solution or syrup according to step 1), as measured with a calibrated refractometer, is 57-80 °Bx (degrees Brix), and the concentration of 2'-FL in the aqueous solution or syrup according to step 1) is 40-70 wt%.
- 20 5. The method according to claim 4, wherein an aqueous solution or syrup comprising 2'-FL further comprises DFL and optionally lactose, preferably wherein
 - the 2'-FL:DFL weight ratio is more than 2, more preferably more than 4, even more preferably more than 6, particularly between 8-13, and/or
 - the 2'-FL:lactose weight ratio is 10-110 and the DFL:lactose weight ratio is 1-10.
- 25 6. The method according to claim 4 or 5, wherein the total solid content of the aqueous solution or syrup according to step 1) 67-77 °Bx, and the concentration of 2'-FL in the aqueous solution or syrup according to step 1) is 52-62 wt%.
7. The method according to claim 6, wherein the total solid content of the aqueous solution or syrup according to step 1) 70-75 °Bx, and the concentration of 2'-FL in the aqueous solution or syrup according to step 1) is 56-62 wt%.
- 30 8. The method according to claim 7, wherein the aqueous solution or syrup is provided at least at 45 °C, preferably at 50±2 °C.

9. The method according to claim 6, wherein the total solid content of the aqueous solution or syrup according to step 1) 67-75 °Bx, the concentration of 2'-FL in the aqueous solution or syrup according to step 1) is 52-62 wt%, and the aqueous solution or syrup is provided at least at 45 °C, preferably at 50±2 °C.
- 5 10. The method according to claim 4, wherein an aqueous solution or syrup comprising 2'-FL further comprises DFL and optionally lactose, preferably wherein
the 2'-FL:DFL weight ratio is more than 13, preferably more than 25, such as more than 50, and the DFL:lactose weight ratio is less than 1.
11. The method according to claim 4 or 10, wherein the total solid content of the aqueous
10 solution or syrup according to step 1) 67-77 °Bx, and the concentration of 2'-FL in the aqueous solution or syrup according to step 1) is 62-70 wt%, such as 64-68 wt%.
12. The method according to claim 11, and the aqueous solution or syrup is provided at least at 45 °C, preferably at 50±2 °C.
13. The method according to any one of the precedent claims, wherein the amount of the
15 crystalline 2'-FL in the suspension of crystalline 2'-FL in acetic acid added in step 2) is 0.5-2 wt% relative to the total solid content of the aqueous solution or syrup provided in step 1).
14. The method according to claim 13, wherein the amount of acetic acid in the slurry after addition of the suspension is 2-3 wt%.
- 20 15. The method according to claim 14, wherein the 2'-FL/acetic suspension added in step 2) is of 24±2 wt%.
16. The method according to any one of the precedent claims, wherein the addition of acetic acid in step 3) is performed at a temperature of 30-40 °C, preferably the acetic acid is added continuously or in several portions in 12±2 hours.
- 25 17. The method according to claim 16, wherein the acetic acid to water weight fraction in the crystalline suspension at the end of the addition of the acetic acid is 4.6-6, preferably 4.6-5.5.
18. The method according to any one of the preceding claims, wherein the crystalline mass obtained in step 3) is cooled to 0-25 °C, preferably 20-25 °C, and stirred for 5±1 hours.
- 30 19. The method according to any one the precedent claims, wherein the aqueous solution or syrup provided in step 1) a purified fermentation broth.
20. Crystalline 2'-FL obtained or obtainable by the method according to any one of the claims 1 to 19.

21. The crystalline 2'-FL according to claim 20 having the following assay values: 2'-FL is at least 97 %, DFL is less than 2 %, and acetic acid: less than 0.5 %.
22. The crystalline 2'-FL according to claim 21, wherein the water content is less than 0.5 % preferably less than 0.25 % or 0.1 %.
- 5 23. The crystalline 2'-FL according to any one the claims 20 to 22, which is polymorph II.
24. A nutritional or pharmaceutical composition comprising the crystalline 2'-FL according to any one of the claims 20 to 23.
25. Use of the crystalline 2'-FL according to any one of the claims 20 to 23 in the preparation of food compositions or food supplements.
- 10 26. Use of the crystalline 2'-FL according to any one of the claims 20 to 23 as a food composition or food supplement.