

0:20A:0 A i B i A < 5 B 0 = 0



**0:20A:0 A i B i A < 5 B 0 = 0 ; 878 @ > 20 == K9 10:B5 @ 80;L=K9 :> = F5=B@0B 4;O ? @ 83 > B > 2;5=8
A < 5 B 0 = K A = 0 A K 15 == K < 2:C A > < 8 2 K @ 0 65 == K < ? > 78 B 82 = K < 2 > 7459 A B 285 < = 0 > @ 30 = 87 <. 0:20
A i B i A < 5 B 0 = 0 : C ? 8 B L
> B > @ C N @ 5:>< 5=4 C 5 B A O 4;O > ? B 8 < 870 F 88 ? > 2 A 54=52=> 3 > @ 0 F 8 > = 0 8 => @ < 0; 870 F 88 @ 0 1 > B K
G @ 5 72 K G 0 9 => ? > ; 57 = K < ? @ > 4 C : B > < 157 8 A : C A A B 25 == K E 8 35 == > > 4 8 D 8 F 8 @ > 20 == K E ? @ 8 < 5 A 5 9**

5 9 B 8 = 3 : 5 B @ 5 9 B 8 = 3 0

& 5 = 0 :

& 5 = 0 A > A : 8 4 : > 9 :
4 3 , 0 0 @ C 1

0 4 0 9 B 5 2 > ? @ > A ? > M B > < C B > 2 0 @ C

? 8 A 0 = 8 5

> 4 @ > 1 = > 5 > ? 8 A 0 = 8 5 ? @ 5 ? 0 @ 0 B 0

> < 0 H = O O A < 5 B 0 = 0 A i B i > 1; 0 4 0 5 B ? @ 5 : @ 0 A = K < 8 2 : C A > 2 K < 8 : 0 G 5 A B 2 0 < 8 , > 4 = > @ > 4 = > 9 A B @ C : B

9 8 A < 5 B 0 = 0

M D D 5 : B 8 2 = 0 2 ? @ > D 8 ; 0 : B 8 : 5 4 8 A 10 : B 5 @ 8 > 7 0 , ? > ; > 6 8 B 5 ; L = > 2 ; 8 0 5 B = 0 D

! > A B 0 2

0:20A:0 A i B i A < 5 B 0 = 0⁸ 2 : ; N G 0 5 B 2 A 5 1 O 10:B5 @ 88 Lactococcus lactis subsp. Lactis 2 : > ; 8 G 5 A B

> 7 8 @ > 2 : 0 8 A ? > A > 1 K ? @ 8 3 > B > 2 ; 5 = 8 0

; O ? @ 8 3 > B > 2 ; 5 = 8 0 A < 5 B 0 = K 9 8 ? > = 0 4 > 1 8 B A O A B 5 @ 8 ; L = 0 O ? > A C 4 0 , ? @ > : 8 ? O G 5 = K 5 A ; 8 2 : 8 (

\$> @ < 0 2 K ? C A : 0

0 @ B > == K 5 : > @ > 1 : 8 ? > 1 0 A B 8 : > 2 A 1 0 : B 5 @ 8 0 ; L = K < : > = F 5 = B @ 0 B > < (1 A B 8 : - 3 3) . 0 : 2 0 A : C A i B

! @ > : 3 > 4 = > A B 8 8 C A ; > 2 8 O E @ 0 = 5 = 8 O

! @ > : E @ 0 = 5 = 8 O = 5 ? @ 5 2 K H 0 5 B 1 8 < 5 A . ? @ 8 A > 1 ; N 4 5 = 8 8 B 5 < ? 5 @ 0 B C @ K 4 > + 6 ° 8 2 ; 0 6 => A B 8 4

! < 5 B 0 = C E @ 0 = 8 B L 7 0 : @ K B > 9 , 2 E > ; > 4 8 ; L = 8 : 5 - 4 > 1 4 4 = 5 9 .