

가 , pH 4 (pH 2)

() , 10

가 (: 97-25405), 30

10 (1),

가 (: PCT/JP94/001675, 3-235667, 4-364123, 4-41434, 5-186335, 5-186336).

70

가

가 가

1

2

(seed)

1

2

1

(*Streptococcus*) , (*Lactococcus*) , (*Leuconostoc*) , (*Pediococcus*) , (*Enterococcus*) , (*Lactobacillus*) , (*Bifi-dobacterium*) 1

가 [Eudragit L30D, Eudragit LS30D, Kollicoat MP(BASF (MC), (HPC),)], [HPMC; (pharma coat), (aqua coat)], (Guar gum), (Locust bean gum), (Xanthan gum), (Gellan gum), (Arabic gum)

가

1

1

가

1

가

1 80 %

1

2

1

2

i) 1 Zein-DP 80%
 가 가 가 35 55
 1 , ,

[1]

	1 차 코팅	2 차 코팅
유입공기온도(℃)	70	60
장치내 과립온도(℃)	45	45
유입공기풍량(m³/분)	9	9
배기공기풍량(m³/분)	10	10
Slit 공기유입풍량(m³/분)	7	7
Fluid 공기유입풍량(m³/분)	7	7
코팅액 분무속도(ml/분)	10	12
분사공기풍량(m³/분)	35	35
rotor 회전수(rpm)	300	300
교반기 회전수(rpm)	500	500
lump breaker 회전수(rpm)	2500	1700
spur jet (on-off)	매 20 초	매 20 초

2

1

(A) 1
 : (*Lactobacillus acidophilus*):
 (*Lactobacillus bifidus*):
 (*Streptococcus faecalis*)
 = 1:1:1(w/w/w) 250g
 : 3g
 300Mℓ

(B) 2
 : (A) 253g
 : HPMCP 50g
 / (1/1,v/v) 700Mℓ
 3

1

(A) 1
 : (*Lactobacillus acidophilus*):
 (*Lactobacillus bifidus*):
 (*Streptococcus faecalis*)
 = 1:1:1(w/w/w) 250g
 : 3g
 300Mℓ

(B) 2
 : (A) 253g
 : 40g

500Mℓ
4

1

(A) 1 : (*Lactobacillus acidophilus*):
 (*Lactobacillus bifidus*):
 (*Streptococcus faecalis*)
 = 1:1:1(w/w/w) 125g
 : 3g
 300Mℓ

(B) 2 : (A) 253g
 : Zein-DP(가) 30g
 80% 500Mℓ
 5Mℓ
 5

1

(A) 1 : (*Lactobacillus acidophilus*):
 (*Lactobacillus bifidus*):
 (*Streptococcus faecalis*)
 = 1:1:1(w/w/w) 125g
 : 3g
 300Mℓ

(B) 2 : (A) 253g
 : 25g
 500Mℓ 3g
 (pH 2.5 3.0)
 6

1

(A) 1 : (*Lactobacillus acidophilus*):
 (*Lactobacillus bifidus*):
 (*Streptococcus faecalis*)
 = 1:1:1(w/w/w) 125g
 - 125g
 : 3g
 300Mℓ

(B) 2 : (A) 253g
 : 940(Carbomer[®] 940) 10g
 500Mℓ
 7

1

(A) 1 : (*Lactobacillus acidophilus*):
 (*Lactobacillus bifidus*):
 (*Streptococcus faecalis*):
 = 1:1:1(w/w/w/) 125g
 : 3g

300Mℓ
(B) 2
: (A) 253g
: 30g
(pH 7.2) 500Mℓ
5Mℓ
8

1

(A) 1
:
(*Lactobacillus acidophilus*):
(*Lactobacillus bifidus*):
(*Streptococcus faecalis*)
= 1:1:1(w/w/w) 125g
125g
:
3g

300Mℓ
(B) 2
: (A) 253g
: 20g
500Mℓ
5Mℓ

1

1 8

[USP()

]

-1(10⁸)

10g
5

100Mℓ

1

50rpm

(: Elliker broth;

: , 37 , 72)

100Mℓ

2

가

100%

1

5
100

2

3

[2]

()

	인공위액체류(1시간) pH 1.2	인공장액체류(5시간) pH 6.8 (붕해)	생존율(%)	비고
실시예 1	변화없음	1시간이내	65	
실시예 2	변화없음	30분이내	43	
실시예 3	변화없음	3시간이내	55	
실시예 4	변화없음	1시간이내	69	
실시예 5	변화없음	2시간이내	23	
실시예 6	변화없음	1시간이내	31	
실시예 7	변화없음	1시간이내	27	
실시예 8	변화없음	2시간이내	25	
A 사	변화없음	5시간이상	17	젤라틴 코팅
B 사	변화없음	1시간이내	3	

2

가

(57)

1.

(seed)

2.

1 (*Streptococcus*) , (*Lactococcus*) , (*Leuco*
nostoc) , (*Pediococcus*) , (*Enterococcus*) , (*Lactobacillus*) ,
(*Bifi-dobacterium*) 1

3.

1 2 , 1 80 %

4.

1 가 , , ,

5.

1 2 가

6.

5 가 가 , , (HPMCP), (HPMC),
(HPC), (HPMCAS), (CAP), (EC), (CMC), (MC),

7.

6 가 (HPMCP),
1

8.

6 7 , 1 95 %

9.

5 가 , , , , , , , , ,

, 1,4- , , , 1

10.

1 5 , 2 , (myvacet),
, , , , , 1 가

11.

10 , 가 2 1 50 %

12.

1 5 , 2 35 70 .