
(54)

-2-

1

,

N-

-5-

,

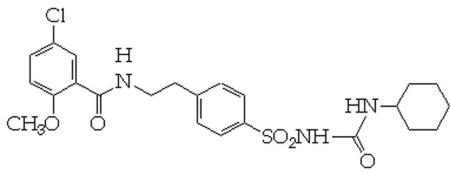
- 1 -

가

1

가

1



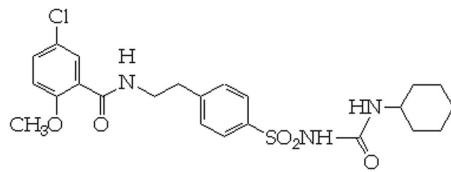
N- (N- 5- 2- , p-(N- 5- 2-) , p

-2- 1 , N- 5-

가 가

1

1



(Glibenclamide)

5- -N-[2-[4-(

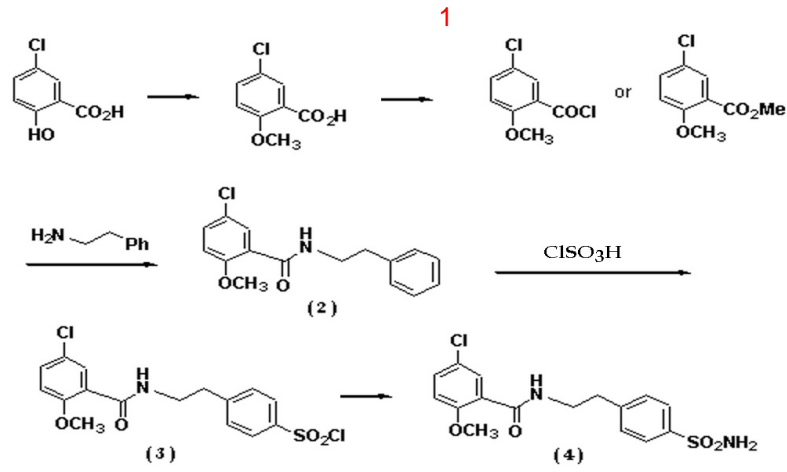
)] -2-

876,138 N- (5-

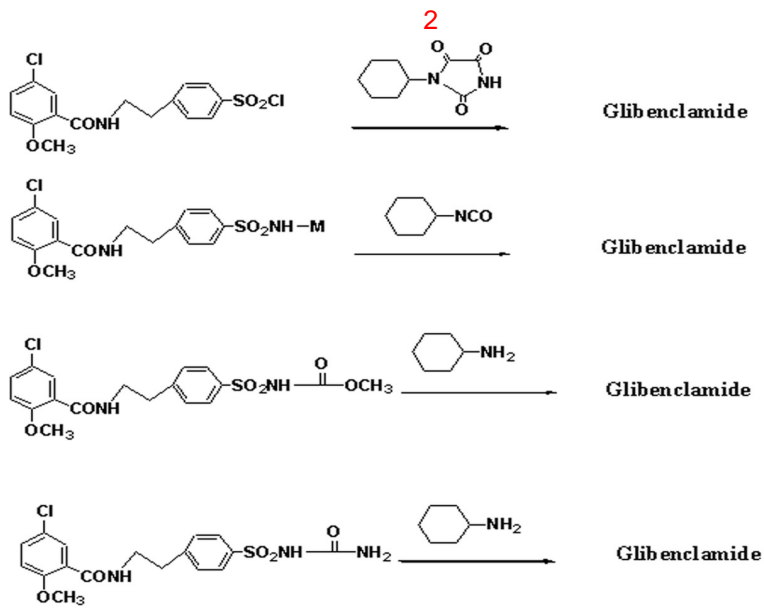
3,965,173 -2-

1)-4-

, 5-



(7.3) 1 (CISO₃H) 2 N- -5- -2- 3 70% (CISO₃H) (CISO₃H) (H₂O) 7 8 가 1 가 3,454,635 , 3,825,665 3,932,503 2 N- (5- -2-)-4-



2 : M
2

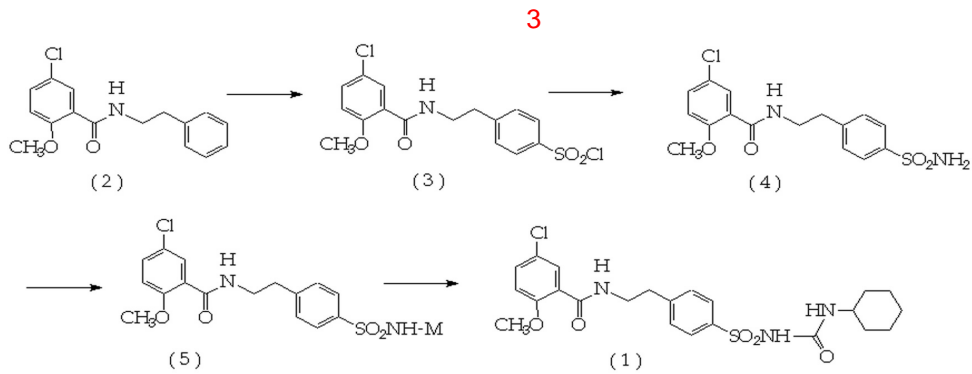
2 2 5 가

2 N- -5- -2-



가

) 2 N- -5- -2- (ClSO₃H) 3 p-(N- -5- -2- (SOCl₂)
) ; 4 p-(N-
) -5- -2-) ;
) 4 p-(N- -5- -2-) -
 ;
) 5
 1



3 : M

2 N- -5- -2-
 1

p-(N- -5- -2- N- -5- -2-) (ClSO₃H) (SOCl₂) (H₂O)

가

2.5 3.5

7 8 2 (H₂O) 1.5 가

(40 80)

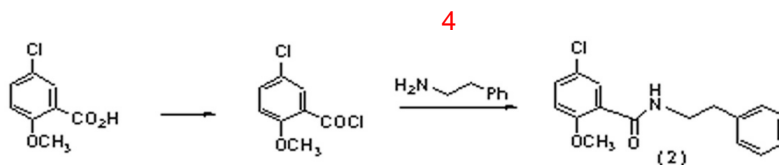
(0 5)

가 , 가가 가

3

4

p-(N-가 -5- -2-)
 5 p-(N- -5- -2-)
 (DMF) 5
 (60 80) 30
 가 가
 5
 1
 가
 97% (trituration)
 99.5% 95% N- -5- -2-
 4 5- -2-



4
 5- -2-
 가 100%
 (20 25)
 1 3 , 2
 5- -2-
 2 1.0 N- 5- -2-
 1.5

1 : 5- -2- (18.7 g, 0.1 mol) (50 Mℓ)
 5- -2- (14.3 g, 1.2 mol) 2 가
 20.5 g(100%)
 mp 59 60 ; ¹H-NMR(CDCl₃, 200 MHz) 3.91(s, 3H), 6.98 7.99(m, 3H)
 2 : N- -5- -2- (20.5 g, 0.1 mol) (100 Mℓ) (0
 5) (12.7 g, 1.05 eq) (11.1 g, 1.1 eq) (50 Mℓ)
 5%
 28.9 g(100%)
 mp 63 64 (observed); R_f 0.32(/ =3/1); ¹H-NMR(CDCl₃, 200 MHz) 2.92(t, J= 6.7Hz, 2H), 3.73(s, 3H), 3.75(t, J=6.7 Hz, 2H), 6.83 8.17(m, 8H), 7.80(bs, 1H); MS(70 eV) m/z 289(M⁺), 258, 198, 185, 168, 154, 126, 111, 104, 77.

3 : p-(N- -5- -2-) (28.9 g, 0.1 mole) (100 Mℓ) 0
 N- -5- -2- (14.3 g, 1.2 eq) (35.0 g, 0.3 mole) (50 Mℓ)
 0 5 30

40 5 가 . HPLC (100 Mℓ)
 (1 kg) 38.8 g(100%) : 5
 % o- 5%)

mp 90 93 (observed, 90%); R_f 0.43(/ =1/1); ¹H-NMR(CDCI₃, 200MHz) 2.9
 2(t, J= 7.1Hz, 2H), 3.50(t, J=7.1Hz, 2H), 3.78(s, 3H), 7.05 7.67(m, 7H), 8.22(bs, 1H); MS(70 eV) m/z 389(M⁺), 352, 304, 198, 169, 153, 138, 126, 110.

4 : p-(N- -5- -2-)
1
 p-(N- -5- -2-) (38.8 g, 0.1 mol) (100 Mℓ)
) 0 가 (5.1 g, 0.3 mol) 가 (2)
 (1 L) 35.0 g(95%)
 o- 10%

2
 100 Mℓ (28 30%, 10) 1 kg 5 p-
 (N- -5- -2-) (38.8 g, 0.1 mol) (100 Mℓ)
) HPLC 가 (1 L) (5
) 31.3 g(85%)

mp 211 213 (observed)(MeOH); R_f 0.15(/ =1/1); ¹H-NMR(CD₃OD, 200 MHz) 3.0
 1(t, J= 6.9Hz, 2H), 3.67(t, J=6.9Hz, 2H), 3.84(s, 3H), 7.09 7.80(m, 7H), 8.26(bs, 1H); MS(70 eV) m/z 368(M⁺), 287, 198, 169, 154, 126, 111.

5 :
 (9.9 g, 0.1 mol) (11.1 g, 0.11 mol) (100 Mℓ)
 (0 5) (17.2 g, 0.11 mol) (50 Mℓ)
 2 5% 5
 % 19.3 g(88%)

mp 131 133 (observed); R_f 0.55(/ =3/1); ¹H-NMR(CDCI₃, 200 MHz) 1.19 1.98(
 m, 10H), 3.58(bs, 1H), 4.89(bs, 1H), 7.10 7.46(m, 5H); MS(70 eV) m/z 219(M⁺), 176, 136, 118, 94, 77.

6 :
1
 p-(N- -5- -2-) (36.8 g, 0.1 mol), (5.6 g, 0.1 mol)
 (200 Mℓ) 0.5 가 -
 l) 5 가 - (20) (13.8 g, 0.11 mo
 (50 Mℓ×2
 trituration :), (RT, 4 hs) (1 L) 1
 4N- 2 (5 10)
 p-(N- -5- -2-) (BBSA)가
 47.0 g(95%)

2
 p-(N- -5- -2-) (36.8 g, 0.1 mol), (4.0 g, 0.1 mol)
 (200 Mℓ) 0.5 가 -
 mol) 3 가 - (100 Mℓ) 가 (13.8 g, 0.11
 (50 Mℓ×2 tritura
 tion :), (RT, 4hs) (1 L) 1
 4N- 2 (5 10)
 BBSA가 44.5 g(90%)

3
 p-(N- -5- -2-) (36.8 g, 0.1 mol), (4.0 g, 0.1 mol)
 (200 Mℓ) 0.5 가 -
 3 가 - (100 Mℓ) 가 (24.1 g, 0.11 mol)
 (50 Mℓ×2 trituration :
), (RT, 4hs) (1 L) 1 4N
 - 2 (5 10)
 BBSA가 44.5 g(90%)

mp 168 170 (observed); R_f 0.43(/ =3/7); ¹H-NMR(CDCI₃, 200 MHz) 1.13(m, 5H),
 1.58(m, 5H), 2.92(t, J= 6.9Hz, 2H), 3.31(m, 1H), 3.54(t, J=6.9Hz, 2H), 3.78(s, 3H), 6.32 7.83(m, 7H), 8.25(bs

, 1H); MS(70 eV) m/z 394, 368, 352, 288, 198, 169, 125, 111, 89.

1

3

1

[1]

				a (%)	
		45	(100)	70% ^b	
		2	()	57% ^c	
(3 eq)	(1.2 eq)	5	()	2 3%	
(3 eq)	(1.2 eq)	CH ₂ Cl ₂	5 ()	2 3%	
(3 eq)	(1.2 eq)	CH ₂ Cl ₂	5 ()	95% ^d	
(3 eq)	(1.2 eq)	C ₂ H ₄ Cl ₂	5 ()	95% ^e	
a)	: HPLC	b)	3,965,173	c)	3,965,173
d)			90% e)		80%

2

6
2

[2]

				* (%)
KOH(1 eq)	CH ₃ OH	30		100%
	CH ₃ OH	1		100%
		30		
NaOH(1 eq)	CH ₃ OH	30		100%
	CH ₃ OH	1		100%
	2-	30		
K ₂ CO ₃ (1 eq)	CH ₃ OH	1		90%
		1		60%
	2-	1		80%
Na ₂ CO ₃ (1 eq)	CH ₃ OH	1		90%
		1		60%
	2-	1		80%
* : HPLC				

가

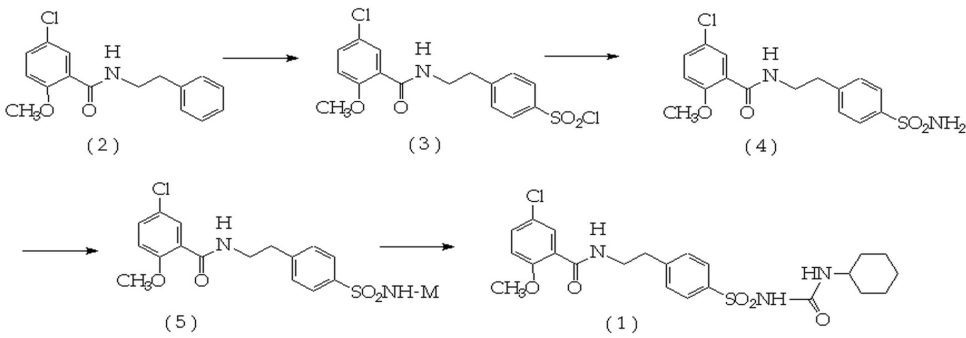
가

가

(57)

1.

) 2 N- -5- -2- (SOCl₂)
 (CISO₃H) 3 p-(N- -5- -2-)
) ; 4 p-(N-
) -5- -2-) ;
) 4
) 5 p-(N- -5- -2-) -
 ;
) 5
 1



2.

1 , 2 N- -5- -2- 1 1.5
 (SOCl₂) 2.5 3.5 (CISO₃H)

3.

2 , 40 80 가

4.

1 , 4 NaOH KOH 1

5.

4 , 60 80 가

6.

1 , 1 가