Claims

[Claim 1] A pharmaceutical composition which consists of a first layer comprising metformin and a second layer comprising gemigliptin.

[Claim 2] The composition according to claim 1, wherein the first layer comprising metformin is coated with the second layer comprising gemigliptin.

[Claim 3] The composition according to claim 1, wherein the first layer further comprises pregelatinized starch.

[Claim 4] The composition according to claim 1 or 3, wherein the second layer further comprises microcrystalline cellulose.

[Claim 5] A method for the preparation of a combination drug comprising gemigliptin and metformin, which comprises the steps of:
(a) mixing gemigliptin with a pharmaceutically acceptable excipient;
(b) mixing metformin with a pharmaceutically acceptable excipient and granulating the mixture; and
(c) mixing the mixture prepared in step (a) with the granules prepared in step (b).

[Claim 6] The method according to claim 5, wherein step (c) is carried out by pressing the mixture comprising gemigliptin prepared in step (a) and the granules comprising metformin prepared in step (b) into a bilayer tablet.

[Claim 7] The method according to claim 5, wherein step (c) is carried out by coating a tablet made by the granules comprising metformin prepared in step (b) with the mixture comprising gemigliptin prepared in step (a).

[Claim 8] The method according to claim 5, wherein the pharmaceutically acceptable excipient is selected from the group consisting of polyvinylpyrrolidone, microcrystalline cellulose, pregelatinized starch, carbomer, magnesium stearate, croscarmellose sodium and sodium stearyl fumarate.

CLAIMS

1. A bilayer tablet which consists of a first layer comprising metformin and a second layer comprising gemigliptin.

2. A tablet which consists of a first layer comprising metformin and a second layer comprising gemigliptin, wherein the first layer comprising metformin is coated with the second layer comprising gemigliptin.

3. The bilayer tablet according to claim 1, wherein the first layer further comprises pregelatinized starch.

4. The bilayer tablet according to claim 1 or 3, wherein the second layer further comprises microcrystalline cellulose.

5. The tablet according to claim 2, wherein the first layer further comprises pregelatinized starch.

6. The tablet according to claim 2 or 5, wherein the second layer further comprises microcrystalline cellulose.

7. A method for the preparation of a combination drug comprising gemigliptin and metformin, which comprises the steps of:

(a) mixing gemigliptin with a pharmaceutically acceptable excipient;

(b) mixing metformin with a pharmaceutically acceptable excipient and granulating

the mixture; and

(c) mixing the mixture prepared in step (a) with the granules prepared in step (b).

8. The method according to claim 7, wherein step (c) is carried out by pressing the mixture comprising gemigliptin prepared in step (a) and the granules comprising metformin prepared in step (b) into a bilayer tablet.

9. The method according to claim 7, wherein step (c) is carried out by coating a tablet made by the granules comprising metformin prepared in step (b) with the mixture comprising gemigliptin prepared in step (a).

10. The method according to claim 7, wherein the pharmaceutically acceptable excipient is selected from the group consisting of polyvinylpyrrolidone, microcrystalline cellulose, pregelatinized starch, carbomer, magnesium stearate, croscarmellose sodium and sodium stearyl fumarate.