

【公開番号】特開平6-315381の請求の範囲	US パテント 5352605 Claim
<p>【請求項1】 (a) 植物ウイルス由来のプロモーター領域； (b) 5' 非翻訳領域； (c) 構造コード配列； (d) mRNAのポリアデニル化シグナル配列をコードし、植物内で天然に発現される遺伝子の3' 非翻訳領域；を順番に含み、前記構造コード配列が前記プロモーター領域に対して異種である、植物細胞内でポリペプチドを発現することができるキメラ遺伝子。</p> <p>【請求項2】 プロモーターが、カリフラワーモザイクウイルス由来である請求項1に記載の遺伝子。</p> <p>【請求項3】 3' 非翻訳領域が、ノパリンシンサーゼ遺伝子由来である請求項2に記載の遺伝子。</p> <p>【請求項4】 プロモーターが、カリフラワーモザイクウイルスの完全長転写プロモーターである請求項1に記載の遺伝子。</p> <p>【請求項5】 3' 非翻訳領域が、ノパリンシンサーゼ遺伝子由来である請求項4に記載の遺伝子。</p>	<ol style="list-style-type: none"> 1. A chimeric gene which is expressed in plant cells comprising a promoter from a cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV (35S) promoter isolated from CaMV protein-encoding DNA sequences and a CaMV (19S) promoter isolated from CaMV protein-encoding DNA sequences, and a structural sequence which is heterologous with respect to the promoter. 2. A chimeric gene of claim 1 in which the promoter is the CaMV(35S) promoter. 3. A chimeric gene of claim 1 in which the promoter is the CaMV(19S) promoter. 4. A plant cell which comprises a chimeric gene that contains a promoter from cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV (35S) promoter and a CaMV (19S) promoter, wherein said promoter is isolated from CaMV protein-encoding DNA sequences, and a structural sequence which is heterologous with respect to the promoter. 5. A plant cell of claim 4 in which the promoter is the CaMV(35S) promoter. 6. A plant cell of claim 4 in which the promoter is the CaMV(19S) promoter. 7. An intermediate plant transformation plasmid which comprises a region of homology to an Agrobacterium tumefaciens vector, a T-DNA border region from Agrobacterium tumefaciens and a chimeric gene, wherein the chimeric gene is located between the T-DNA border and the region of homology, said chimeric gene comprising a promoter from cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV(35S) promoter and a CaMV(19S) promoter, and a structural sequence which is heterologous with respect to the promoter.

8. A plant transformation vector which comprises a disarmed plant tumor inducing plasmid of *Agrobacterium tumefaciens* and a chimeric gene, wherein the chimeric gene contains a promoter from cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV(35S) promoter and a CaMV(19S) promoter, and a structural sequence which is heterologous with respect to the promoter.

9. A plant transformation vector of claim 8 in which the promoter is the CaMV(35S) promoter.

10. A plant transformation vector of claim 8 in which the promoter is the CaMV(19S) promoter.

11. The chimeric gene of claim 1 comprising in the 5' to 3' direction:

(1) the CaMV(35S) promoter,

(2) a structural sequence encoding neomycin phosphotransferase II, and

(3) a 3' non-translated polyadenylation sequence of nopaline synthase.

12. The chimeric gene of claim 1 comprising in the 5' to 3' direction:

(1) the CaMV(19S) promoter,

(2) a structural sequence encoding neomycin phosphotransferase II, and

(3) a 3' non-translated polyadenylation sequence of nopaline synthase.

13. A DNA construct comprising:

(A) a CaMV promoter selected from the group consisting of (1) a CaMV 35S promoter isolated from CaMV protein-encoding DNA sequences and (2) a CaMV 19S promoter isolated from CaMV protein-encoding DNA sequences, and

(B) a DNA sequence of interest heterologous to (A), wherein (B) is under the regulatory control of (A) when said construct is transcribed in a plant cell.

14. A chimeric gene which is transcribed and translated in plant cells, said chimeric gene comprising a promoter from cauliflower mosaic virus, said promoter selected from the group consisting of:

a) a CaMV 35S promoter region free of CaMV protein-encoding DNA sequences and

b) a CaMV 19S promoter region free of CaMV protein-encoding DNA sequences,

and a DNA sequence which is heterologous with respect to the promoter.

15. A chimeric gene which is expressed in plants cells comprising a promoter from a cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV(35S) promoter region free of CaMV protein-encoding DNA sequences and a CaMV(19S) promoter region free of CaMV protein-encoding DNA sequences, and a DNA sequence which is heterologous with respect to the promoter.

16. A chimeric gene which is transcribed in plants cells comprising a promoter from a cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV(35S) promoter free of CaMV protein-encoding DNA sequences and a CaMV(19S) promoter free of CaMV protein-encoding DNA sequences, a DNA sequence which is heterologous with respect to the promoter and a 3' non-translated polyadenylation signal sequence.

17. A plant cell which comprises a chimeric gene where said chimeric gene comprises a promoter from cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV(35S) promoter and a CaMV(19S) promoter, wherein said promoter is free of CaMV protein-encoding DNA sequences, and a DNA sequence which is heterologous with respect to the promoter and a 3' non-translated

polyadenylation signal sequence.

18. An intermediate plasmid of claim 7 in which the promoter is the CaMV(19S) promoter.

19. An intermediate plasmid of claim 7 in which the promoter is the CaMV(35S) promoter.