WHAT IS CLAIMED IS:

1 A method of producing a rabies virus like particle (VLP) in a plant comprising,

a) introducing a nucleic acid comprising a regulatory region active in the plant operatively linked to a nucleotide sequence encoding a native rabies glycoprotein (G), into the plant, or portion of the plant,

b) incubating the plant or portion of the plant under conditions that permit the expression of the nucleic acid, thereby producing the rabies VLP,

c) harvesting the plant, and

d) extracting the VLPs, wherein the VLPs range in size from 40-300 nm and,

wherein the VLP comprises a lipid obtained from a plasma membrane of the plant.

2. A method of producing a rabies virus like particle (VLP) in a plant comprising,

a) providing a plant or portion of the plant comprising a nucleic acid comprising a regulatory region active in the plant operatively linked to a nucleotide sequence encoding one or more native rabies glycoprotein (G),

b) incubating the plant or portion of the plant under conditions that permit the expression of the nucleic acid, thereby producing the rabies VLP,

c) harvesting the plant, and

d) extracting the VLPs, wherein the VLPs range in size from 40-300 nm, and

wherein the VLP comprises a lipid obtained from a plasma membrane of the plant.

3. The method of claim 1 or 2, wherein the nucleotide sequence further encodes, comprises or both encodes and comprises, one or more than one amplification element.

4. The method of claim 3, wherein the one or more than one amplification element is a geminivirus amplification element.

5. The method of claim 4, wherein the one or more than one geminivirus amplification element is selected from a Bean Yellow Dwarf Virus long intergenic region (BeYDV LIR), and a BeYDV short intergenic region (BeYDV SIR).

6. The method of claim 1, wherein a second nucleic acid comprising a second regulatory region active in the plant and operatively linked to a second nucleotide sequence encoding a rabies matrix protein (M) or fragment thereof is introduced into the plant, or portion of the plant and is expressed when incubating the plant or portion of the plant in step b).

7. The method of claim 2, wherein the plant or portion of the plant further comprises a second nucleic acid comprising a second regulatory region active in the plant and operatively linked to a second nucleotide sequence encoding a rabies matrix protein (M) or fragment thereof and is expressed when incubating the plant or portion of the plant in step b).

8. The method of claim 1, wherein in the step of introducing (step a), the nucleic acid is transiently expressed in the plant.

9. The method of claim 1, wherein, in the step of introducing (step a), the nucleic acid is stably expressed in the plant.

10. The method of any one of claims 1-9, wherein the VLP is extracted by biochemical extraction.

11. A plant-derived VLP comprising one or more native rabies glycoprotein (G) wherein the VLP comprises a lipid obtained from the plasma membrane of the plant.

12. A VLP produced by the method of any one of claims 1-10.

13. The VLP of claim 12, wherein the lipid comprises one or more than one lipid derived from the plant.

14. The VLP of claim 12, wherein one or more glycoprotein (G), comprises plant-specific N-

glycans, or modified N-glycans.

15. A composition comprising an effective dose of the VLP of any one of claims 11-14 for inducing an immune response in a subject, and a pharmaceutically acceptable carrier.

16. A method of inducing immunity to a rabies virus infection in a subject, comprising administering the composition of claim 15.

17. The method of claim 16, wherein the composition is administered to a subject orally, intradermally, intranasally, intramusclarly, intraperitoneally, intravenously, or subcutaneously.

18. The VLP of any one of claims 11-14 for use in inducing immunity to a rabies virus infection in a subject.

19. A food supplement comprising the VLP of any one of claims 11-14.

20. The method of claim 1 or 6, further comprising introducing an additional nucleic acid sequence, the additional nucleic acid sequence encoding a suppressor of silencing, a geminivirus replicase or both.

21. The method of claim 20, wherein the suppressor of silencing and the geminivirus replicase are encoded by two different additional nucleic acid sequences that are introduced into the plant, or portion of the plant.

22. The method of claim 20 wherein the suppressor of silencing is selected from the group HcPro and p19.

23. The method of any one of claims 1, 2, 6 and 7, wherein the native rabies glycoprotein (G)has at least 90% sequence identity to SEQ ID NO: 14.

24. The method of any one of claims 1, 2, 6 and 7, wherein the native rabies glycoprotein (G) has the amino acid sequence shown as in SEQ ID NO:14.

25. The method of claim 6 or 7, wherein the rabies matrix protein (M)has at least 90% sequence identity to SEQ ID NO: 6.

26. The method of claim 6 or 7, wherein the rabies matrix protein (M) has the amino acid sequence shown as in SEQ ID NO: 6.

27. The method of any one of claims 1, 2, 6 and 7, wherein the nucleic acid sequence comprising the regulatory region is further operatively linked with one or more than one comovirus enhancer.

28. The method of claim 27, wherein the one or more than one comovirus enhancer is a comovirus UTR.

29. The method of claim 28, wherein the comovirus UTR is a Cowpea Mosaic Virus (CPMV) UTR.

30. The method of claim 1 or 2, wherein the VLP does not contain a viral matrix or a core protein.

WHAT IS CLAIMED IS:

1 A method of producing a rabies virus like particle (VLP) in a plant comprising,

a) introducing a nucleic acid comprising a regulatory region active in the plant operatively linked to a nucleotide sequence encoding one or more native rabies glycoprotein (G) the nucleotide sequence further encoding, comprising or both encoding and comprising one or more than one amplification element, into the plant, or portion of the plant,

b) incubating the plant or portion of the plant under conditions that permit the expression of the nucleic acid, thereby producing the rabies VLP,

c) harvesting the plant, and

d) extracting the VLPs, wherein the VLPs range in size from 40-300 nm and,

wherein the VLP comprises a lipid obtained from a plasma membrane of the plant.

2. A method of producing a rabies virus like particle (VLP) in a plant comprising,

a) providing a plant or portion of the plant comprising a nucleic acid comprising a regulatory region active in the plant operatively linked to a nucleotide sequence encoding one or more native rabies glycoprotein (G),the nucleotide sequence further encoding, comprising or both encoding and comprising one or more than one amplification element,

b) incubating the plant or portion of the plant under conditions that permit the expression of the nucleic acid, thereby producing the rabies VLP,

c) harvesting the plant, and

d) extracting the VLPs, wherein the VLPs range in size from 40-300 nm, and

wherein the VLP comprises a lipid obtained from a plasma membrane of the plant.

3. The method of claim 1 or 2, wherein the one or more than one amplification element is a geminivirus amplification element.

4. The method of claim 3, wherein the one or more than one geminivirus amplification element is selected from a Bean Yellow Dwarf Virus long intergenic region (BeYDV LIR), and a BeYDV short intergenic region (BeYDV SIR).

5. The method of claim 1, wherein a second nucleic acid comprising a second regulatory region active in the plant and operatively linked to a second nucleotide sequence encoding a rabies matrix protein (M) is introduced into the plant, or portion of the plant and is expressed when incubating the plant or portion of the plant in step b).

6. The method of claim 2, wherein the plant or portion of the plant further comprises a second nucleic acid comprising a second regulatory region active in the plant and operatively linked to a second nucleotide sequence encoding a rabies matrix protein (M) and is expressed when incubating the plant or portion of the plant in step b).

7. The method of claim 1, wherein in the step of introducing (step a), the nucleic acid is transiently expressed in the plant.

8. The method of claim 1, wherein, in the step of introducing (step a), the nucleic acid is stably expressed in the plant.

9. The method of any one of claims 1-8, wherein the VLP is extracted by biochemical extraction.

10. A plant-derived VLP comprising one or more native rabies glycoprotein (G) wherein the VLP comprises a lipid obtained from the plasma membrane of the plant.

11. A VLP produced by the method of any one of claims 1-9.

12. The VLP of claim 11, wherein the lipid comprises one or more than one lipid derived from the plant.

13. The VLP of claim 11, wherein one or more glycoprotein (G), comprises plant-specific N-glycans, or modified N-glycans.

14. A composition comprising an effective dose of the VLP of any one of claims 10-13 for inducing an immune response in a subject, and a pharmaceutically acceptable carrier.

15. Use of the composition of claim 14 for the preparation of a medicament for inducing immunity to a rabies virus infection in a subject.

16. The composition of claim 14 for use in inducing immunity to a rabies virus infection in a subject.

17. The use of claim 15 or the composition of claim 16, wherein the composition is suitable for oral, intradermal, intranasal, intramuscular, intraperitoneal, intravenous, or subcutaneous administration to a subject.

18. The VLP of any one of claims 10-13 for use in inducing immunity to a rabies virus infection in a subject.

19. A food supplement comprising the VLP of any one of claims 10-13.

20. The method of claim 1 or 5, further comprising introducing an additional nucleic acid sequence, the additional nucleic acid sequence encoding a suppressor of RNA silencing, a geminivirus replicase or both.

21. The method of claim 20, wherein the suppressor of RNA silencing and the geminivirus replicase are encoded by two different additional nucleic acid sequences that are introduced into the plant, or portion of the plant.

22. The method of claim 20 wherein the suppressor of RNA silencing is selected from the group HcPro and p19.

23. The method of any one of claims 1, 2, 5 and 6, wherein the native rabies glycoprotein (G) has at least 90% sequence identity to SEQ ID NO: 14.

24. The method of any one of claims 1, 2, 5 and 6, wherein the native rabies glycoprotein (G) has the amino acid sequence shown as in SEQ ID NO:14.

25. The method of claim 5 or 6, wherein the rabies matrix protein (M) has at least 90% sequence identity to SEQ ID NO: 6.

26. The method of claim 5 or 6, wherein the rabies matrix protein (M) has the amino acid sequence shown as in SEQ ID NO: 6.

27. The method of any one of claims 1, 2, 5 and 6, wherein the nucleic acid sequence comprising the regulatory region is further operatively linked with one or more than one comovirus enhancer.

28. The method of claim 27, wherein the one or more than one comovirus enhancer is a comovirus UTR.

29. The method of claim 28, wherein the comovirus UTR is a Cowpea Mosaic Virus (CPMV) UTR.

30. The method of claim 1 or 2, wherein the VLP does not contain a viral matrix or a viral core protein.