(iv) a protein or peptide encoded by the open reading frame of the monkeypox ortholog B5R gene or its ortholog,

so as to induce a protective immune response against poxvirus in the subject.

2. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the orthologs in (a) are derived from an orthopoxvirus selected from the group consisting of: camelpox virus, ectromelia virus, raccoon poxvirus, skunk poxvirus, Tatera poxvirus, Uasin Gishu virus, Volepox virus, variola virus, vaccinia virus, monkeypox virus, gerbilpox and cowpox virus, or genetically engineered versions thereof.

3. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the orthologs of (b) and (c) are derived from an orthopoxvirus selected from the group consisting of: camelpox virus, ectromelia virus, raccoon poxvirus, skunk poxvirus, Tatera poxvirus, Uasin Gishu virus, Volepox variola virus, vaccinia virus, monkeypox virus, gerbilpox and cowpox virus, or genetically engineered versions thereof.

4. The method of claim **3** for inducing in a subject an immune response against poxvirus, wherein the orthologs are purified recombinant monkeypox virus proteins or peptides selected from the group consisting of a protein or peptide encoded by the open reading frame of the monkeypox ortholog M1R gene, a protein or peptide encoded by the open reading frame of the monkeypox ortholog A35R gene, a protein or peptide encoded by the open reading frame of the monkeypox ortholog A29L gene, a protein or peptide encoded by the open reading frame of the monkeypox ortholog B6R gene.

5. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the nucleic acid vaccine is administered to the subject by intramuscular injection, intradermal injection, gene gun, electroporation, or biojector.

6. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the protein vaccine is administered to the subject by intramuscular injection, intradermal injection, gene gun or electroporation.

7. The method of claim **1**, wherein the protein of (b) is administered a minimum of a week following the administering of the nucleic acid of (a).

8. The method of claim **1** for inducing in a subject an immune response against poxvirus wherein said poxvirus protected against is an Orthopoxvirus chosen from the group consisting of: camelpox virus, ectromelia virus, raccoon poxvirus, skunk poxvirus, Tatera poxvirus, Uasin Gishu virus, Volepox virus variola virus, vaccinia virus, monkeypox virus, gerbilpox, and cowpox virus or genetically engineered versions thereof.

9. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the nucleic acid vaccine is administered in a dosage range of between 50 micrograms and 1 milligram.

10. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the protein of (b) is administered in a dosage range of between 50 micrograms and 1 milligram.

11. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the protein of (c) is administered in a dosage range of between 50 micrograms and 1 milligram.

12. The method of claim **1** for inducing in a subject an immune response against poxvirus, wherein the nucleic acid vaccine comprises

a carrier particle having a nucleic acid sequence coated thereon comprising a promoter operative in the cells of a mammal and a protein coding region encoding for the poxvirus antigen L1R antigen or its ortholog,

a carrier particle having a nucleic acid sequence coated thereon comprising a promoter operative in the cells of a mammal and a protein coding region encoding for the poxvirus antigen A33R antigen or its ortholog,

a carrier particle having a nucleic acid sequence coated thereon comprising a promoter operative in the cells of a mammal and a protein coding region encoding for the poxvirus antigen A27L antigen or its ortholog, and

a carrier particle having a nucleic acid sequence coated thereon comprising a promoter operative in the cells of a mammal and a protein coding region encoding for the poxvirus antigen B5R antigen or its ortholog.

13. The method of claim **1**, wherein the nucleic acid vaccine and the protein vaccine are administered to the subject subsequent to the subject's exposure to a poxvirus.

14. The method of claim **1**, wherein the protein vaccine is administered in a cluster dosing regimen.

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