CLAIMS

What is claimed is:

1. A recombinant expression vector comprising a nucleic acid encoding a polypeptide having a sequence selected from the group consisting of SEQ ID NOs: 1-20, 63-66, 800-801, 1726-1728, and 1987-1988.

2. An isolated adeno-associated virus (AAV) capsid protein comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 1-20, 63-66, 800-801, 1726-1728, and 1987-1988.

3. A recombinant expression vector comprising a nucleic acid sequence encoding the isolated AAV capsid protein of claim 2.

4. A recombinant AAV (rAAV) comprising the isolated AAV capsid protein of claim 2.

5. A host cell containing the recombinant expression vector of claim 3.

6. The isolated AAV capsid protein of claim 2, wherein the capsid protein is a VP1 capsid protein.

7. The recombinant expression vector of claim 1, wherein the nucleic acid encodes a VP1 capsid protein, a VP2 capsid protein, or a VP3 capsid protein.

8. The recombinant expression vector of claim 1 comprising a nucleic acid encoding a polypeptide having a sequence of SEQ ID NO: 66.

9. The isolated AAV capsid protein of claim 2 comprising an amino acid sequence of SEQ ID NO: 66.

10. A kit comprising:

a container housing a recombinant AAV having an isolated adeno-associated virus (AAV) capsid protein comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 1-20, 63-66, 800-801, 1726-1728, and 1987-1988.