Claims

1. An adenovirus having a capsid comprising a hexon capsid protein of SAdV-39, amino acids 1 to 940 of SEQ ID NO: 11, said capsid encapsidating a heterologous molecule carrying a gene operably linked to expression control sequences which direct transcription, translation, and/or expression thereof in a host cell and 5' and 3' adenovirus cis-elements necessary for replication and encapsidation.

2. The adenovirus according to claim 1, wherein said adenovirus is replication-defective.

3. The adenovirus according to claim 1, wherein said virus has a hybrid capsid, wherein the penton or fiber protein is selected from:

a penton protein of SAdV-30, amino acids 1 to 533 of SEQ ID NO: 103; a penton protein of SAdV-25.2, amino acids 1 to 531 of SEQ ID NO: 135; a penton protein of SAdV-37, amino acids 1 to 542 of SEQ ID NO: 38; a penton protein of SAdV-38, amino acids 1 to 539 of SEQ ID NO: 70; a penton protein of SAdV-26, amino acids 1 to 546 of SEQ ID NO: 167; and

a fiber protein of SAdV-30, amino acids 1 to 445 of SEQ ID NO: 118; a fiber protein of SAdV-25.2, amino acids 1 to 443 of SEQ ID NO: 151; a fiber protein of SAdV-37, amino acids 1 to 445 of SEQ ID NO: 54; a fiber protein of SAdV-38, amino acids 1 to 425 of SEQ ID NO: 85; a fiber protein of SAdV-26, amino acids 1 to 425 of SEQ ID NO: 183.

4. The adenovirus according to claim 1, wherein said vector comprises more than one capsid protein from SAdV-39, said capsid protein selected from one or more of a penton protein of SAdV-39, amino acids 1 to 532 of SEQ ID NO: 6 and a fiber protein of SAdV-39, amino acids 1 to 489 of SEQ ID NO: 22.

5. A recombinant adenovirus having a capsid comprising a hexon containing a fragment of a simian adenovirus hexon protein and a nucleic acid sequence heterologous to the SAdV, wherein the fragment of the SAdV hexon protein is the SAdV hexon protein of SEQ ID NO: 11 with an N-terminal or C-terminal truncation of about 50 amino acids in length or is selected from the group consisting of:

amino acid residues 125 to 443 of SEQ ID NO: 11; and

amino acid residues 138 to 441 of SEQ ID NO: 11

6. The recombinant adenovirus according to claim 5, wherein the capsid further comprises a SAdV-39, SAdV-30, SAdV-25.2, SAdV-37, SAdV-38 or SAdV-26 fiber protein.

7. The recombinant adenovirus according to claim 5, wherein the capsid further comprises a SAdV-39, SAdV-30, SAdV-25.2, SAdV-37, SAdV-38 or SAdV-26 penton protein.

8. The recombinant adenovirus according to claim 5, wherein said adenovirus is a pseudotyped adenovirus.

9. The recombinant adenovirus according to claim 5, wherein the recombinant adenovirus comprises one or more adenovirus genes and is deleted in adenovirus E1.

10. A composition comprising a virus according to any of claims 1 to 9 in a pharmaceutically acceptable carrier.

11. An adenovirus according to any one of claims 1 to 4 or a recombinant adenovirus according to any one of claims 5 to 9, for use in delivering a molecule to a target cell having an adenoviral receptor.