

CLAIMS

1. A replication competent oncolytic group B adenovirus comprising a transgene cassette encoding an anti-CD40 antibody, wherein the transgene cassette comprises a nucleic acid sequence given in SEQ ID NO: 12.
2. An oncolytic virus according to claim 1, wherein the virus is Enadenotucirev.
3. An oncolytic virus according to any one of claims 1 to 2, wherein the virus comprises SEQ ID NO: 1.
4. An oncolytic virus according to claim 3, which consists of SEQ ID NO: 1.
5. A pharmaceutical composition comprising a virus according to any one of claims 1 to 4, and a pharmaceutically acceptable excipient, diluent or carrier.
6. An oncolytic virus according to any one of claims 1 to 4 or a pharmaceutical composition according to claim 5, for use in treatment.
7. Use of an oncolytic virus according to any one of claims 1 to 4 or a pharmaceutical composition according to claim 5 in the manufacture of a medicament for the treatment of cancer, insulin resistance, obesity and/or immune deficiency.
8. The use according to claim 7, wherein the virus or composition is for use in the treatment of cancer.
9. An oncolytic virus according to any one of claims 1 to 4 or a pharmaceutical composition according to claim 5 for use in treatment, wherein the oncolytic virus or the pharmaceutical composition is to be administered in combination with a further anti-cancer therapy.
10. An oncolytic virus or a composition for use according to claim 9, wherein the further anti-cancer therapy is chemotherapy.
11. An oncolytic virus or a composition for use according to claim 9 or 10, wherein the further anti-cancer therapy is a check point inhibitor.

12. An oncolytic virus or a composition for use according to claim 11, wherein the anti-cancer therapy is selected from the group comprising a PD-1 inhibitor, a PD-L1 inhibitor, a CTLA-4 inhibitor, a TIM-3 inhibitor, a LAG-3 inhibitor, a TIGIT inhibitor, a B7-H3 (CD276) inhibitor, a B7-H4 (B7S1) inhibitor, a B7H7 (HHLA2) inhibitor, a CD96 inhibitor, a VISTA inhibitor and a combination of two or more of the same.
13. An oncolytic virus or a composition for use according to claim 12, wherein the inhibitor is an antibody or antigen binding fragment thereof.
14. An oncolytic virus or a composition for use according to any one of claims 9 to 10, wherein the further anti-cancer therapy is a co-stimulatory pathway agonist.
15. An oncolytic virus or a composition for use according to claim 14, wherein the further anti-cancer therapy is selected from the group comprising a CD27 agonist, a CD28 agonist, an ICOS agonist, a TMIGD2 (IGPR-1/CD28H) agonist, a CD226 agonist, an OX40 agonist, a 4-1BB agonist, and a combination of two or more of the same.
16. An oncolytic virus or a composition for use according to claim 15, wherein the further anti-cancer therapy is an antibody or antigen binding fragment thereof.
17. An oncolytic virus or a composition for use according to any one of claims 9 to 16, wherein the further anti-cancer therapy activates immune responses or reverses suppression of immune responses.
18. An oncolytic virus or a composition for use according to claim 9, wherein the further anti-cancer therapy is an oncolytic virus.
19. An oncolytic virus or a composition for use according to claim 18, wherein the oncolytic virus encodes therapeutic gene encoding material selected from the group consisting of an RNAi sequence, an antibody or antigen binding fragment thereof, chemokines, cytokines, immunomodulator and enzymes.