Claims

1. A host cell comprising a nucleic acid encoding Adeno-associated virus (AAV) Rep proteins Rep78 and Rep68, wherein the internal AAV promoter p19 has been inactivated by one or more mutations that maintain the functionality of said Rep78 and Rep68 proteins,

wherein said one or more mutations are within at least one of the p19 promoter SP1 -50 region, TATA -20 region, and TATA -35 region, and wherein

i) at least one mutation is within the p19 promoter SP1-50 region and/or

ii) at least one mutation each is within both the p19 promoter SP1-50 region and the TATA -20 region, within both the p19 promoter SP1-50 region and the TATA -35 region, and/or within both the p19 promoter TATA -20 region and the TATA -35 region.

~~ii)~~ wherein said nucleic acid comprises at least one nucleotide sequence, selected from the group consisting of the nucleotide sequences according to SEQ ID NOs: 1, 6, 8, 10, 14, 15, 20, 22, 24, 28, 34, 36, 37, 40 to 43, 45, 46, and 49 to 51.

~~2. The host cell according to claim 1 , wherein said one or more mutations are silent mutations.~~

~~3. The host cell according to claims 1 or 2, wherein said one or more mutations comprise at least one mutation, selected from the group consisting of mutations 731C>D, 732A>C, 734A>B, 737T>C, 746A>G, 749C>D, 752G>H, 758G>A, 761G>H, 764G>H, 818G>A, 824G>H, 830T>V, 833T>C, 845T>C, 846T>C, 8484A>B, 848A>G, 849A>T, 850G>C, and 851C>D.~~

~~4. The host cell according to any one of claims 1 to 3, wherein said nucleic acid comprises at least one nucleotide sequence, selected from the group consisting of the nucleotide sequences according to SEQ ID NOs: 1 to 8, 11 to 14, and 34 to 42.~~

~~5. The host cell according to any one of claims 1 to 3, wherein said nucleic acid comprises at least one nucleotide sequence, selected from the group consisting of the nucleotide sequences according to SEQ ID NOs: 15 to 22, 25 to 28, and 43 to 51.~~

~~6. The host cell according to claim 1 or claim 2, wherein said one or more mutations are mutations that result in one or more conservative amino acid exchanges.~~

~~7. The host cell according to claim 6, wherein said one or more amino acid exchanges are amino acid exchanges within the class of aliphatic amino acids (Gly, Ala, Val, Leu, Ile), within the class of hydroxyl- or sulphur/selenium-containing amino acids (Ser, Cys, Sec, Thr, Met), within the class of basic amino acids (His, Lys, Arg), or within the class of acidic amino acids (Asp, Glu, Asn, Gln).~~

~~8. The host cell according to claim 6 or claim 7, wherein said nucleic acid comprises at least one nucleotide sequence, selected from the group consisting of the nucleotide sequences according to SEQ ID NOs: 9 and 10.~~

~~9. The host cell according to claim 6 or claim 7, wherein said nucleic acid comprises at least one nucleotide sequence, selected from the group consisting of the nucleotide sequences according to SEQ ID NOs: 23 and 24.~~

~~10~~2. A host cell comprising a nucleic acid having at least 90% sequence identity to a nucleic acid as defined in ~~any one of~~ claim~~s~~ 1 ~~to 9~~, provided that the specific mutations defined in said claim~~s~~ are present.

~~11~~3. The host cell according to any one of claims 1 to 2~~10~~, wherein said nucleic acid is stably integrated into the host cell genome or is comprised in a vector.

~~12~~4. The host cell according to any one of claims 1 to 3~~11~~, further comprising a nucleic acid encoding AAV Rep proteins Rep52 and Rep40 under the control of an inducible promoter.

~~13~~5. The host cell according to any one of claims 1 to ~~12~~4, selected from the group consisting of CAP cells, HEK293 cells, and Per.C6 cells.

~~14~~6. A nucleic acid as defined in any one of claims 1 to ~~10~~ 2 or a vector as defined in claim ~~11~~3.

~~15~~7. A method for the production of Adeno-associated virus (AAV), comprising the step of recombinantly expressing AAV Rep proteins Rep78 and Rep68 in a host cell according to any one of claims 1 to ~~13~~5.