

CLAIMS

What is claimed is:

1. A method of determining a viral titer in a biological sample, comprising:
 - a. obtaining the biological sample which contains a virally-transduced cell;
 - b. mechanically disrupting the virally-transduced cell of the biological sample;
 - c. conducting droplet digital polymerase chain reaction (ddPCR) on nucleic acid molecules removed from the disrupted virally-transduced cell; and
 - d. calculating the viral titer.
2. The method of claim 1, wherein the method does not include lysing the virally-transduced cell with a detergent or lysis buffer.
3. The method of claim 1 or claim 2, wherein the mechanically disrupting comprises disruption with glass beads.
4. The method of claim 1 or claim 2, wherein the mechanically disrupting comprises sonication.
5. The method of any one of claims 1-4, wherein the virally-transduced cell is a mammalian cell.
6. The method of claim 5, wherein the mammalian cell is a human cell.
7. The method of claim 6, wherein the human cell is a human embryonic kidney (HEK) cell.

8. The method of claim 7, wherein the viral titer is an adeno-associated virus (AAV) viral titer.
9. The method of claim 7, wherein the viral titer is a lentivirus viral titer.
10. The method of claim 5, wherein the mammalian cell is a Chinese hamster ovary (CHO) cell.
11. The method of claim 10, wherein the viral titer is an adeno-associated virus (AAV) viral titer.
12. The method claim 10, wherein the viral titer is a lentivirus viral titer.
13. A method of determining a viral titer in a biological sample, consisting essentially of:
 - a. obtaining the biological sample which contains a virally-transduced cell;
 - b. mechanically disrupting the virally-transduced cell of the biological sample with glass beads;
 - c. conducting droplet digital polymerase chain reaction (ddPCR) on nucleic acid molecules removed from the disrupted virally-transduced cell; and
 - d. calculating the viral titer.
14. The method of claim 13, wherein the virally-transduced cell is a mammalian cell.
15. The method of claim 14, wherein the mammalian cell is a human cell.

16. The method of claim 15, wherein the human cell is a human embryonic kidney (HEK) cell.
17. The method of claim 16, wherein the viral titer is an adeno-associated virus (AAV) viral titer.
18. The method claim 16, wherein the viral titer is a lentivirus viral titer.
19. The method of claim 14, wherein the mammalian cell is a Chinese hamster ovary (CHO) cell.
20. The method of claim 19, wherein the viral titer is an adeno-associated virus (AAV) viral titer.
21. The method claim 19, wherein the viral titer is a lentivirus viral titer.