Lentivirus Infection

A General Guide on Lentivirus Infection

Multiplicity of infection (MOI) is the ratio of viral particles to target cells. A MOI of 10 indicates that there are 10 viral particles for every cell in your culture vessel. The optimal multiplicity of infection (MOI) to use will vary depending on your target cell line.

Below is a list of commonly used cancer cell lines and the suggested MOI for infection:

Cell Line Name	Description	Suggested MOI *†
A431	Human Epidermal Carcinoma	5
A549	Human Lung Carcinoma	5
B16-F10	Mouse Skin Melanoma, metastatic	5
BxPC-3	Human Pancreatic Adenocarcinoma	10
H3255	Human Non-small Cell Lung Cancer	10
HCT116	Human Colon Carcinoma	5
HeLa	Human Cervical Carcinoma	3
Hepa1-6	Mouse Liver Carcinoma	3
HT-29	Human Colon Adenocarcinoma	3
Jurkat	Human Acute T Cell Leukemia	10
LLC-1	Mouse Lung Carcinoma	6
LNCaP	Human Prostate Carcinoma	5
MM200	Human Skin Melanoma	5
MCF-7	Human Breast Adenocarcinoma	2
MDA-MB-231	Human Breast Adenocarcinoma	1
MM-AN	Human Skin Melanoma, metastatic	16
MMC	Mouse Breast Carcinoma	4
MRC-5	Human Embryonic Lung Fibroblasts	1
NB4	Human Acute Promyelocytic Leukemia	10
PC12	Rat Adreal Gland Pheochromocytoma	20
SKOV-3	Human Ovary Adenocarcinoma	15
U-2 OS	Human Bone Osteosarcoma	5

*adapted from Molecular Therapy (2004) 9, S281

† MOI is calculated as (Virus Titer (IU/ml) x Virus Volume (ml)) divided by the Total Cell Number

If your target cell is not on the list, we recommend infecting your target cells with a reporter lentivirus (i.e. Lenti-GFP, **abm** Cat. No. LV006) in your preliminary study to determine the optimal MOI. To increase the infectivity, perform the viral infection in the presence of polybrene (**abm** Cat. No. G062) at 8 µg/ml and/or ViralPlus (**abm** Cat. No. G698) at 1:100 dilution.

Please refer to our Lentivirus Infection Protocol for detailed step-by-step infection procedure.

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