IVANO BIOSCIENCE

Influenza H7 Pseudovirus

A/Shanghai/4664T/2013 (H7N9)

Luciferase reporter

Lot #250217

Certificate of Analysis

March 12, 2025

Version 1

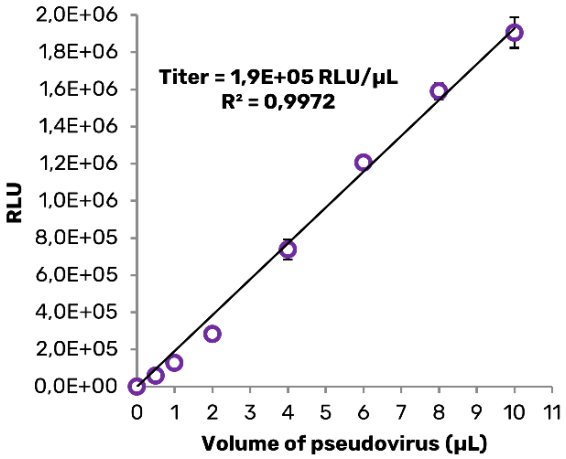
1. Summary

This certificate is a functional validation for the lot #250217 of a HA pseudotyped pseudovirus, strain A/Shanghai/4664T/2013 (H7N9) . The titer is 1.9 x 10^5 RLU/µL. A volume of 1 mL can be used to perform 1,000 reactions or 10 x 96-well plates, according to IVANO Bioscience's protocol available upon request.

2. Transduction efficiency assay

Target cells	HEK293 cells T
Volume of pseudovirus	0 – 0.5 – 1 – 1.5 – 2 – 4 – 6 – 8 – 10 µL/well
Detection signal	Luminescence (firefly luciferase)
Detection method	Microplate reader Biotek Synergy H1 (Gain: 135)

Titration curve



Volume of pseudovirus (µL)	RLU 1	RLU 2	Mean RLU	CV RLU	Fold *vs* Background
0	5,1E+01	3,6E+01	4,4E+01	1,1E+01	1,0E+00
0,5	6,6E+04	5,0E+04	5,8E+04	1,1E+04	1,3E+03
1	1,1E+05	1,4E+05	1,3E+05	1,8E+04	2,9E+03
2	2,8E+05	2,8E+05	2,8E+05	1,6E+03	6,5E+03
4	7,8E+05	7,0E+05	7,4E+05	5,4E+04	1,7E+04
6	1,2E+06	1,2E+06	1,2E+06	2,8E+04	2,8E+04
8	1,6E+06	1,6E+06	1,6E+06	4,4E+04	3,7E+04
10	1,8E+06	2,0E+06	1,9E+06	8,3E+04	4,4E+04

A volume range of pseudovirus was mixed in a final volume of 50 µL of transduction medium, in a 96-well plate. Then, 50 µL containing 10 000 cells was seeded in each well. Luciferase expression was detected 72 hours post-transduction by adding a luciferase reagent (Bright Glo, Promega), using a white 96-well plate. Data are expressed in relative unit luminescence (RLU).

Conclusion

The Influenza H7 pseudovirus (#250217) can transduce the target cells. The titer is 1.9 x 10^5 RLU/µL. Using 1 µL/reaction of pseudovirus in a 96-well plate will yield a 1,000-fold increase in RLU compared to the background. Therefore, 1 mL of lot #250217 could be used to perform approximately 1,000 reactions or 10 x 96-well plates, according to IVANO Bioscience's protocol available upon request.

3. Additional information

Instruction of use

We recommend determining the titer in your lab's conditions before performing any experiments.

Handle under biosafety level-2.

Pseudovirus

3rd generation lentiviral vector, incompetent replication and non-toxic.

Pseudotyping

Influenza hemagglutinin, strain A/Shanghai/4664T/2013 (H7N9) (GENBANK: KC853228.1)

Pseudotyping sequence

MNTQILVFALIAIIPANADKICLGHHAVSNGTKVNTLTERGVEVVNATETVERTNIP
RICSKGKRTVDLGQCGLLGTITGPPQCDQFLEFSADLIIERREGSDVCYPGKFVN
EEALRQILRESGGIDKEAMGFTYSGIRTNGATSACRRSGSSFYAEMKWLLSNTD
NAAFPQMTKSYKNTRKSPALIVWGIHHSVSTAEQTKLYGSGNKLVTVGSSNYQ
QSFVPSPGARPQVNGLSGRIDFHWLMLNPNDTVTFSFNGAFIAPDRASFLRGKS
MGIQSGVQVDANCEGDCHHSGGTIISNLPFQNIDSRAVGKCPRYVKQRSLLLAT
GMKNVPEIPKGRGLFGAIAGFIENGWEGLIDGWYGFRHQNAQGEGTAADYKST
QSAIDQITGKLNRLIEKTNQQFELIDNEFNEVEKQIGNVINWTRDSITEVWSYNAE
LLVAMENQHTIDLADSEMDKLYERVKRQLRENAEEDGTGCFEIFHKCDDDCMA
SIRNNTYDHSKYREEAMQNRIQIDPVKLSSGYKDVILWFSFGASCFILLAIVMGLV
FICVKNGNMRCTICI

Glycosylation origin

Human

Reporter Protein

Firefly luciferase

Storage

- 80 °C, avoid freeze/thaw cycles.

For more information

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Message object should contain:
"Influenza H7 pseudovirus – #250217".

Intended use

For Research Use Only. Not for Use in Diagnostic Procedures.
Not Meant for Resale.