

Mantacc Viral Transport Medium

Preservation

Test Report

Presentation - Benjamin Qiu

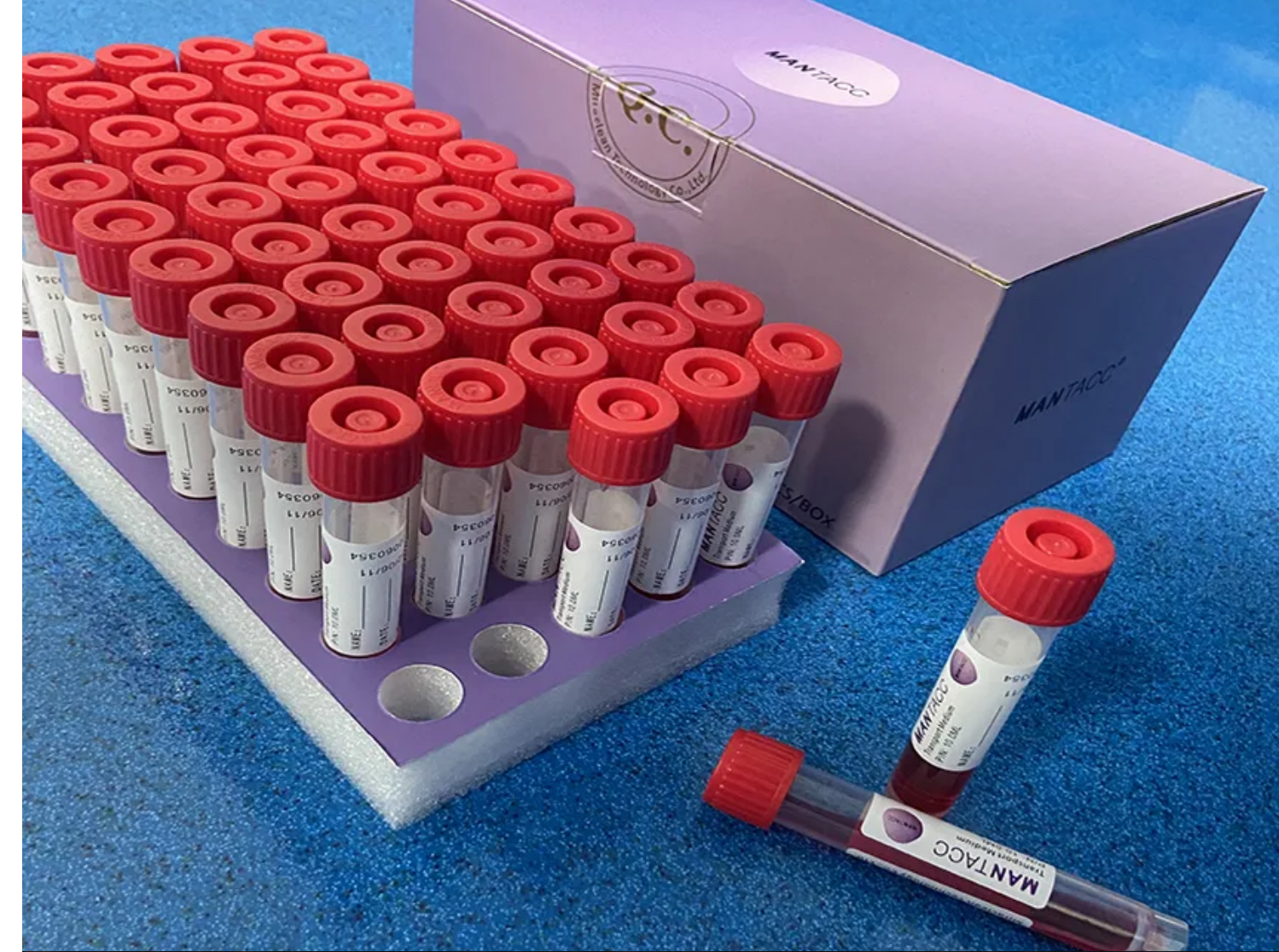
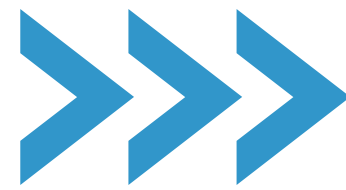
Testing Objective



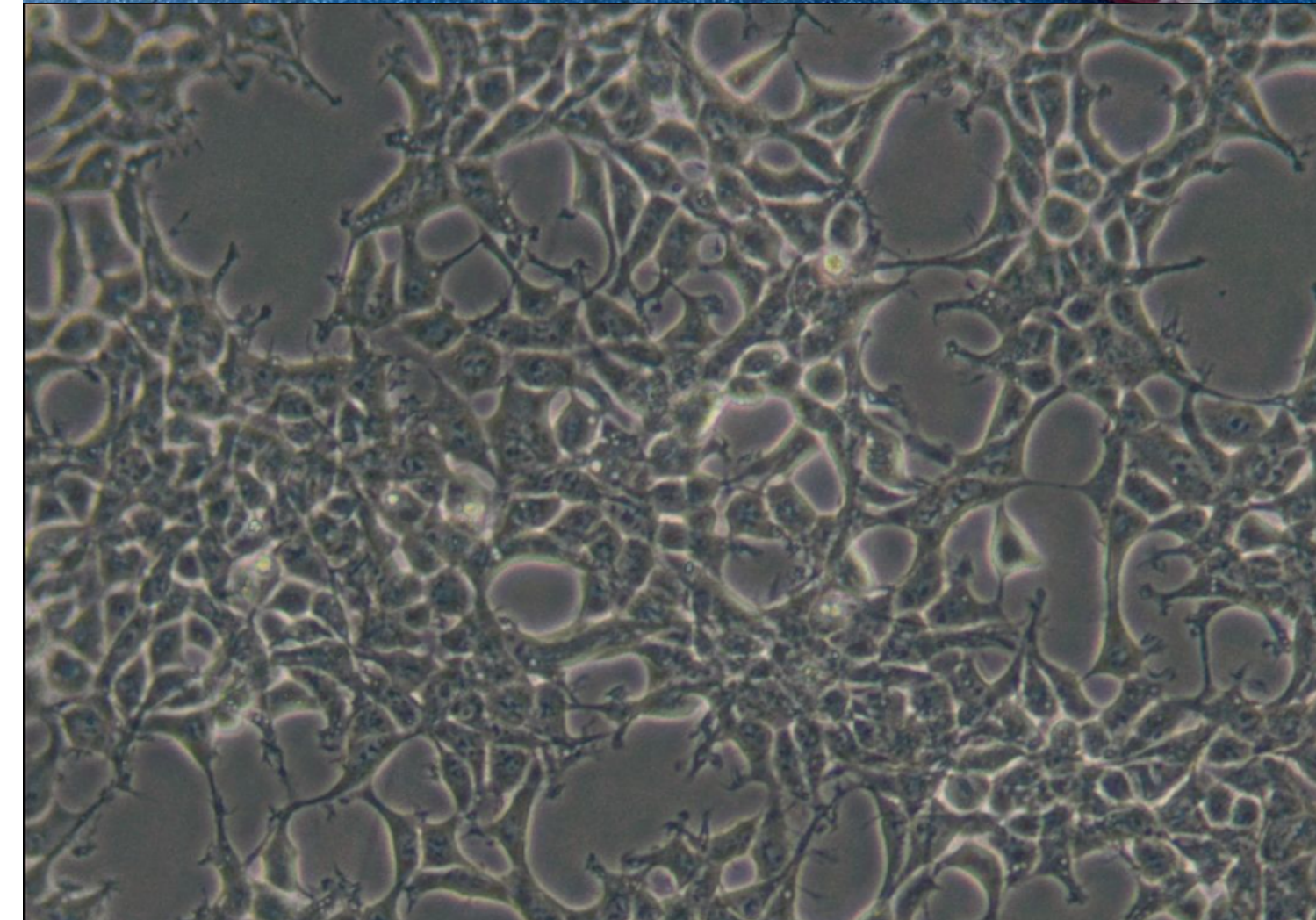
Test whether the Mantacc inactivated viral transport medium can meet experimental requirements after preserving samples for 30min, 3 days, 7 days, 14 days, and 21 days.

Experimental Samples

Our MBT-010 Viral Transport Medium is a system suitable for collection, transport, and preservation of clinical specimens for viral molecular diagnostic testing.



The 293A cell line efficiently produces, amplifies, and titrates replication-incompetent adenovirus. Its flat morphology simplifies titration. The cells contain a stably integrated E1 gene, which enables the expression of the E1 proteins (E1a and E1b) needed to make recombinant adenoviruses. These capabilities allow researchers to screen and develop adenoviral constructs more accurately than ever. The 293A cell line is an essential tool for producing high-quality viral preparations.



Testing Equipment



Equipment

Small rotary mixer
Small Centrifuge
Large Centrifuge
Microscope
Spectrophotometer



Consumables

1.5ml Centrifuge Tube
50ml Centrifuge Tubes
Bus Pipette
EDTA
10%FBS DMEM
Pipette gun
Anhydrous ethanol
70% Ethanol

Testing Process



Sample Processing

Adenovirus infected 293A cells were removed from a 37°C incubator and placed in a biosafety cabinet. PBS, 50ml tubes, and pipettes were also placed in the cabinet. Cells were blown and pipetted into tubes, centrifuged at 1000rpm for 5min, supernatant removed, and cells resuspended in 5ml PBS for counting.

Inactivated VTM Preservation of 293A Cells (30min)

Preservative solution was centrifuged and supernatant removed. Cells were resuspended in PBS, protease and buffers added, incubated, centrifuged through columns to bind DNA. Columns were washed, DNA eluted with preheated buffer and sterile water, then quantified by spectrophotometer.

Testing Result

Number	Sample Preservation Time	Sample Category	Sample ID	DNA Concentration (ng/μl)			DNA Extraction Amount (ng)
				Concentration (ng/μl)	Total (ng/μl)	Average (ng/μl)	
1	30min	Inactivated VTM	A1	226.4	473.6	236.8	2368
2			A2	247.2			
3	3 days	Inactivated VTM	B1	133.1	252.6	126.3	1263
4			B2	119.5			
5	7 days	Inactivated VTM	C1	81.5	157.1	78.6	786
6			C2	75.6			
7	14 days	Inactivated VTM	D1	19.4	41	20.5	205
8			D2	21.6			
9	21 days	Inactivated VTM	E1	4.6	8.1	4.1	41
10			E2	3.5			

- DNA was extracted using column method. Average concentrations from Mantacc preserved samples at 30min, 3 days, 7 days, and 14 days were >50ng, meeting PCR requirements.
- The 21 day sample at 41ng did not meet requirements.

- Mantacc viral transport medium can preserve adenovirus samples for 14 days at 37°C.
- The DNA extracted by the column method can meet the experimental requirements after 14 days of sample preservation.

What We Can Learn



Thank You

For Your Attention

