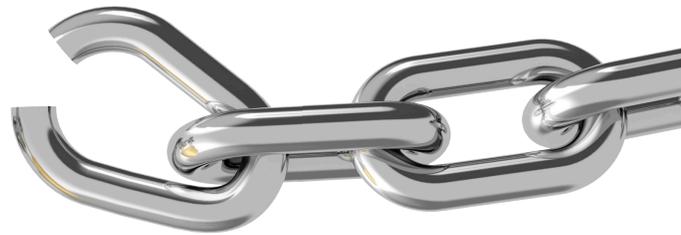


Leprechaun



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Find your pot of gold

Leprechaun is the only system that hunts down viral titer by double-checking if particles are the right size and have the right structure. Count up your lentiviruses with capsids in crude or pure samples. Make your own luck and follow Leprechaun straight to the viral titer you've been looking for without the noise from trickster particles that can throw you off the trail.

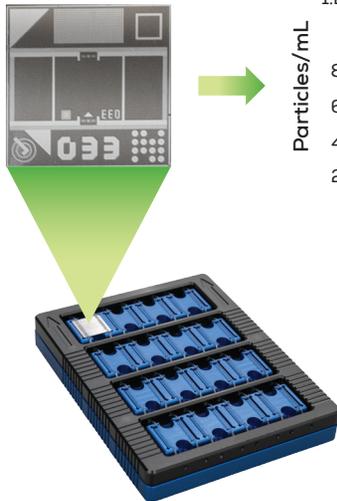
- Lentivirus titer
- Lentivirus structure
- Exosome concentration
- Contaminant analysis



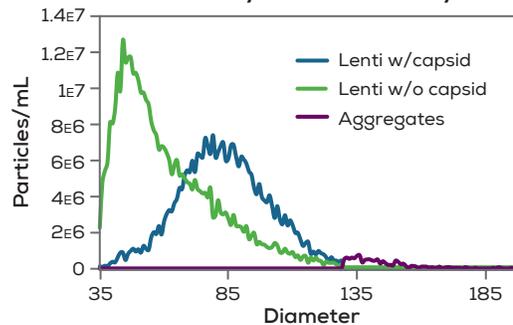
Follow the rainbow

Leprechaun characterizes vectors like lentivirus and exosomes – on up to 16 samples at a time. The Luni consumable is where 1-25 μL of your vector is captured, sized, and then the structure of every particle is identified using immunofluorescence. Out-of-the-box kits with step-by-step protocols deliver answers in just a few hours.

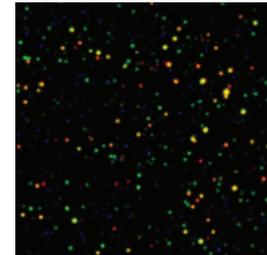
Capture on Luni



Size by interferometry

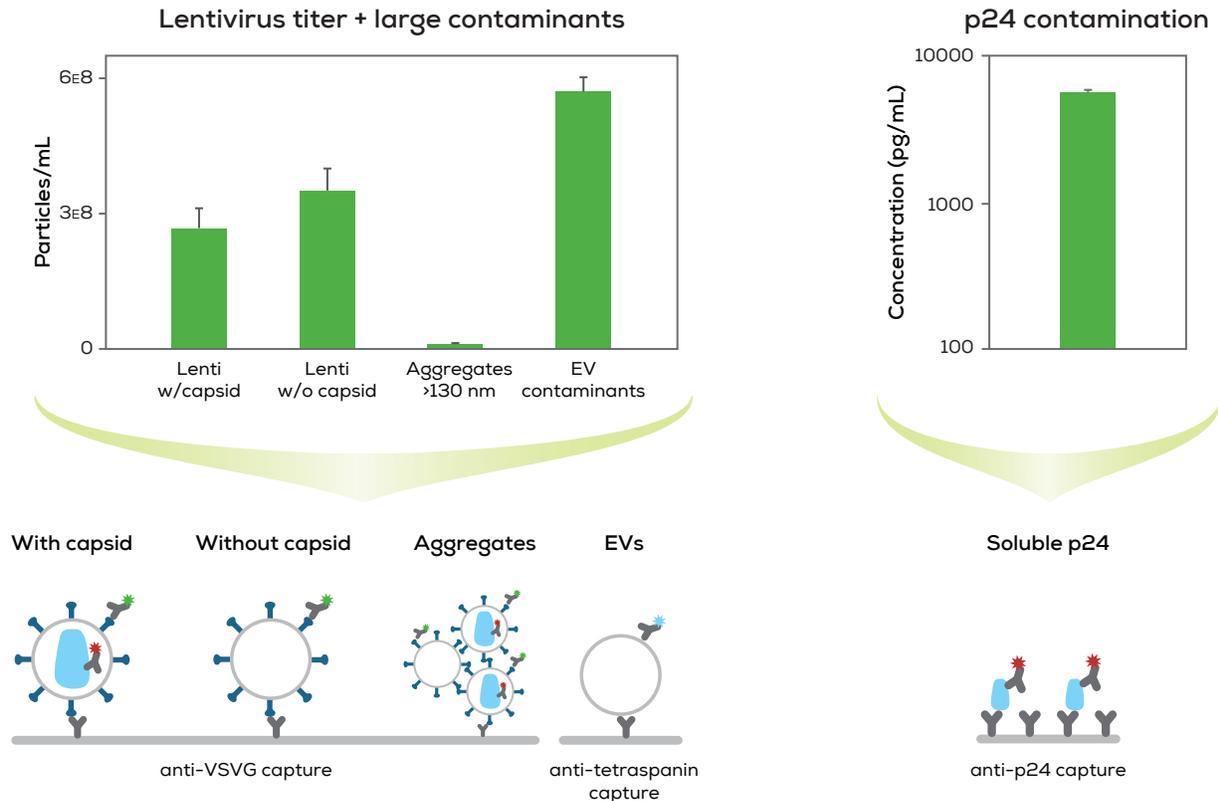


Immunofluorescence



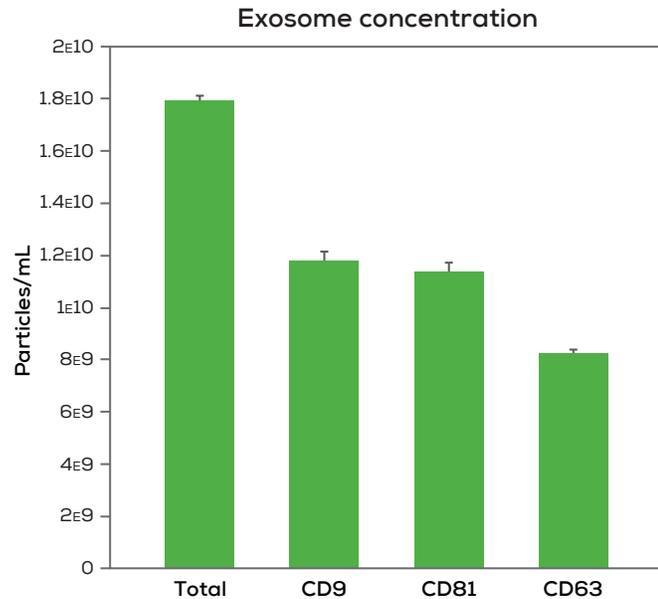
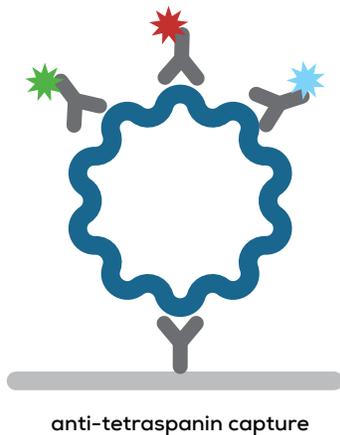
Love your lenti

Score lentivirus titers all the way down to 5×10^6 viral particles/mL – from when they start hatching out of cells to before and after any clean up step. Each Lentivirus Luni dishes out 5 critical pieces of info about your crude or pure lentivirus samples. After capture, particles are sized to sort out individual lentiviruses from aggregates. Fluorescent antibodies confirm how many of your lentiviruses have a capsid, if there's contamination from soluble p24 and if EVs are sneaking around. For the first time you can monitor titer and purity throughout your whole process.



Explore your exosome

Getting your exosome concentration is tricky and confirming that your cell line made what you want is crazy hard. Leprechaun gets exosome concentration in a jiff by grabbing them by their surface proteins, sizing them up and doubling-down with fluorescence to confirm all the right proteins are there. For unique situations, you can customize an assay with your own capture or identification antibodies using a Flex kit.



Instrument	Specification
Dimensions	23.4 cm W x 47.8 cm D x 35.2 cm H; 20.5 kg
Computer	Separate computer with Windows 11 included
Electrical	Input voltage: 110-220 V AC, 50-60 Hz, Max power: 72 Watt
Detection method	Cooled Scientific CMOS image sensor
Approval	CE, TUV
Interference Reflectance Microscopy	
Light source	415 nm LED
Size range	35-200 nm
Sizing accuracy (% error)	≤5%
Fluorescence Microscopy	
Light sources	LED: 470 nm (Blue), 567 nm (Green), 623 nm (Red)
Excitation and emission filters	Blue: 465-495 nm (ex); 505-530 nm (em) Green: 543-568 nm (ex); 580-608 nm (em) Red: 625-655 nm (ex); 665-725 nm (em)
Fluorescence intensity precision	≤5%
Consumable	
Samples per Luni	1
Technical replicates per Luni	3 or 6, application dependent
Lunis per run	1-16
Assay Specifications	
Sample compatibility	Lentivirus: From cell harvest to purified sample Exosomes: Cell culture media, plasma, serum, CSF, urine
Sample volume range	1-25 µL diluted in supplied buffer
Titer dynamic range	Lentivirus: 5×10^6 – 5×10^8 vp/mL Exosomes: 5×10^6 – 5×10^8 particles/mL



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