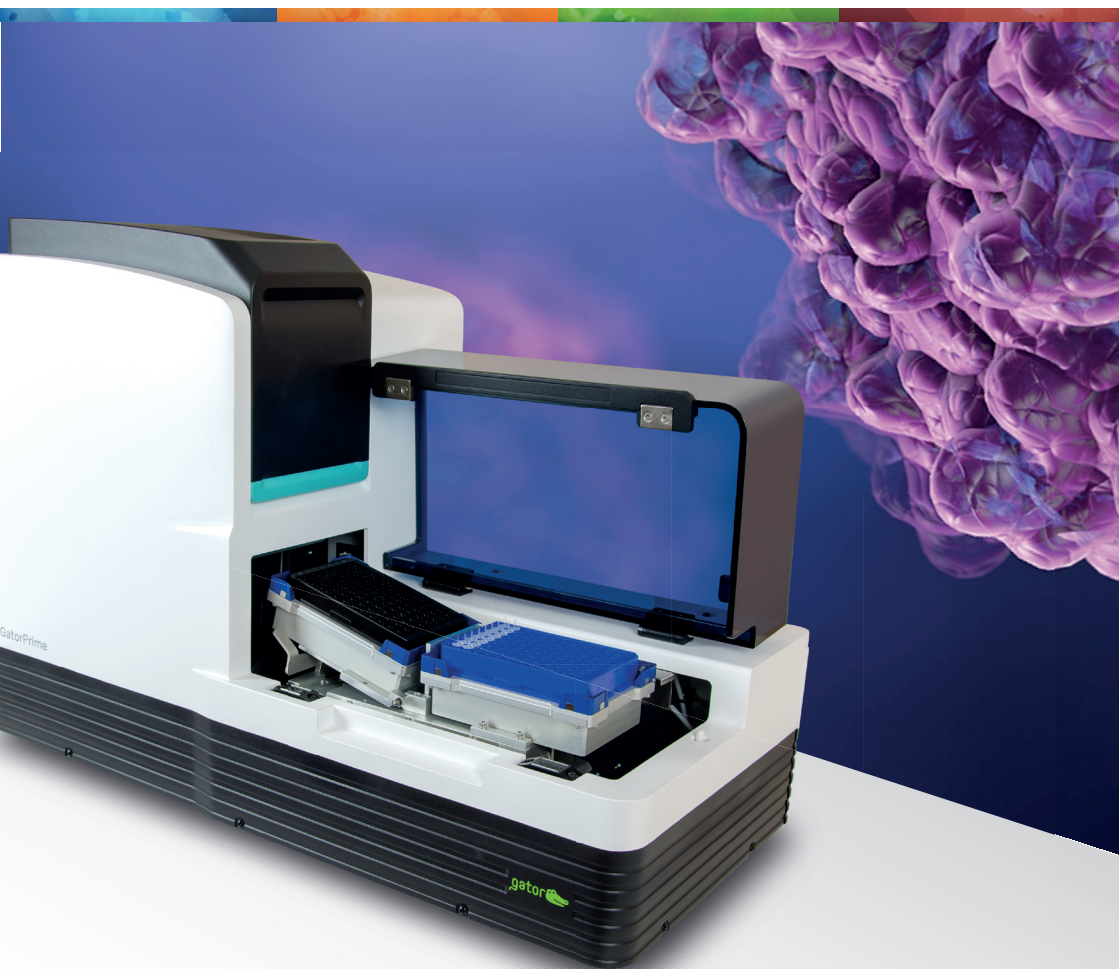


Gator Bio

## GatorPrime and GatorPlus System

Determine AAV total Capsid Titer and Empty/Full Ratio



## PRODUCT OVERVIEW

### Discover the new solution to determine AAV titer and Empty/Full Ratio

Biolayer Interferometry (BLI) is an established method that is traditionally used to study biomolecular interactions. This label-free technique measures the binding of biomolecules to the tip of a biosensor in real-time to determine kinetic rates of interaction pairs or to quantify biomolecular samples. The newest generation of AAV biosensors from Gator Bio opens up this application to the field of gene therapy and enables accurate and reliable quantitation of AAV total capsid titer. With the AAVX and AAV9 biosensors and the new high-sensitivity kits, Gator covers AAV serotypes 1 - 10 with a dynamic range from  $5\text{E}+6$  to  $1\text{E}+13$  vp/ml and a CV of <10%.

The new Empty/Full Ratio Kit is a practical and cost-effective solution for a challenging step in AAV development. With this new tool, the Empty/Full Ratio of AAV samples can be determined after purification or in crude extracts with a dynamic range from 5% - 100% Full and 10% Resolution. A throughput of 8 samples in 40 minutes and a minimum sample volume of only 40  $\mu\text{l}$  makes this kit a valuable asset for upstream processes. Gator Bios AAV portfolio offers a single flexible technique with multiple applications in the field of gene therapy that offer high accuracy, short assay times and a wide dynamic range.



#### Versatile:

Use a single, flexible instrument for multiple AAV specific applications



#### Robust:

AAV titer and Empty/Full Ratio can be determined in crude extracts, cell medium or purified samples



#### Cost effective:

Automatic sensor regeneration keeps the assay cost low



#### Low maintenance:

Probes and sample plates are disposable. There is no need for extensive cleaning protocols or instrument maintenance



#### Little material needed:

Measurements can be performed with a minimal sample volume of only 40  $\mu\text{l}$



#### User friendly:

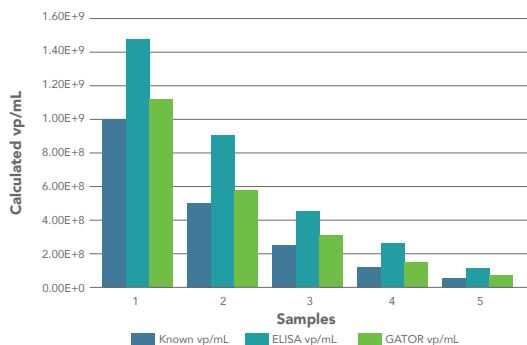
The intuitive software enables easy assay setup and analysis

Product	Dynamic Range
AAVX probes	$1 \times 10^9$ - $1 \times 10^{13}$ vp/mL
AAV9 probes	$3 \times 10^9$ - $1 \times 10^{13}$ vp/mL
AAVX High sensitivity Kit	$5 \times 10^6$ - $5 \times 10^{10}$ vp/mL
AAV9 High Sensitivity Kit	$1 \times 10^7$ - $1 \times 10^9$ vp/mL
Empty/Full Ratio Kit	5% - 100% Full



# AAV TOTAL CAPSID QUANTITATION

## AAV2 Quantitation



## High accuracy:

Gator directly detects binding of biomolecules to the sensor surface in real-time, without the need for additional labels, antibodies or other indirect detection methods. Together with the new generation of pre-coated AAV bio-sensors, the high sensitivity of BLI makes the accuracy of Gator superior to ELISA.

## Next-Gen BLI: 26 min.



## ELISA: 240 min.



## Short assay time:

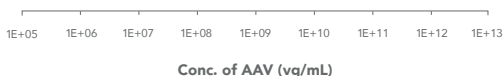
Quantify up to 8 samples in parallel within 2 minutes. With minimal preparation time, Gator can quantify 96 samples in less than 30 minutes. The straight forward data analysis in the integrated software enables you to get results immediately after the assay.



Ultra-sensitive  
AAV Assay

AAVX

ELISA

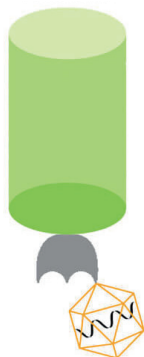


## Wide dynamic range:

There is no need to dilute your samples, no matter if you are in early growth, purification or QC step. This reduces the hands-on time and eliminates errors from the sample dilution steps.

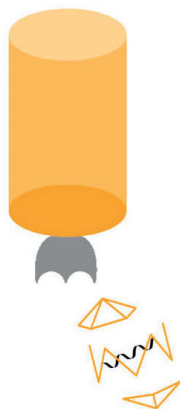
## EMPTY/FULL RATIO WORKFLOW

**Affinity Capture**  
2 - 60 min.



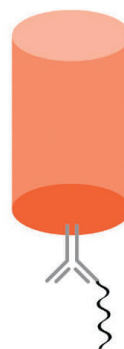
1. Total capsid quantitation and capture on AAV probes

**Lysis**  
7 min.

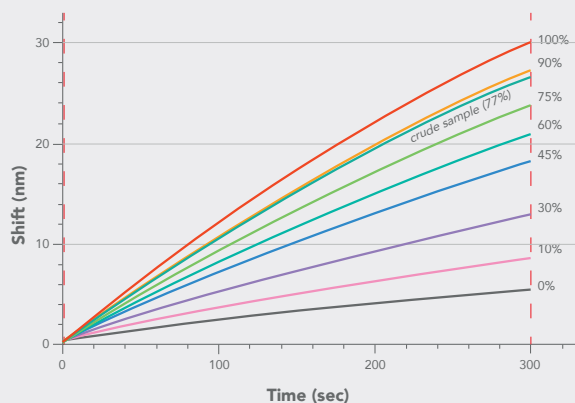


2. Transfer and lysis of AAV particles to release the ssDNA

**ssDNA Assay**  
26 min.



3. Quantitation of released ssDNA with ssDNA probes



### ssDNA measurement:

The figure shows ssDNA binding signal for lysed AAV2 capsids at the same concentration. The ssDNA signals are proportional to the corresponding Full Ratio of the sample.





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