

Genome Titer and Integrity using Gator® AAV GeneSwift Kit

Genome titer is a CQA for safe and efficacious gene therapy products. The GeneSwift kit combines the advantages of DNA sequence specificity, immunoassay based signal amplification, and the speed and ease of BLI to accurately quantitate AAV genome titer. The wide dynamic range of this assay enables titer measurement without sample dilution that is needed in ddPCR assay. This results in very little hands-on time and better reproducibility. Gator's assay allows for up to 32 sample analysis in 35 minutes depending upon the instrument.

PRODUCT INFORMATION

Part Number

350006, 350007, 360008, 350010

Includes

- Anti-Fluorescein Biosensors
- B*PolyA Oligo
- Biotin Detection Reagent
- Hybridization Buffer
- Q Buffer
- 96-Well Ready Plate (x6)
- 96-Well Reagent Black Plate Map
- MAX Plate (x1)
- 8-Strip Tubes (x12)
- Picker

PERFORMANCE SUMMARY

Dynamic Range

4E+09 to 3E+12 vg/mL

Assay Time

Up to 4, 8, 16 or 32 samples in 35 minutes (instrument dependent)

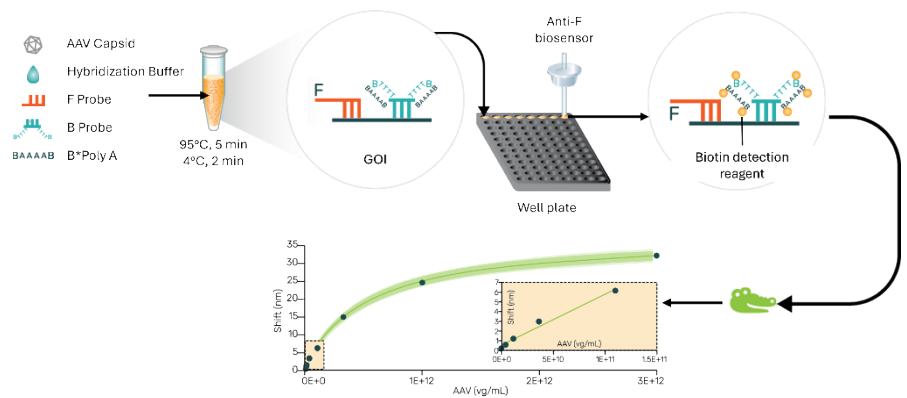
Precision

2-15% CV

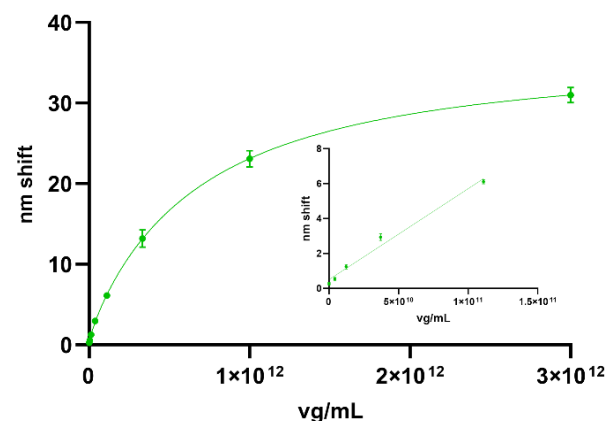
KEY BENEFITS

- Applicable to all AAV serotypes
- Works in crude matrices
- Gene-of-Interest specific

GENESWIFT ASSAY WORKFLOW

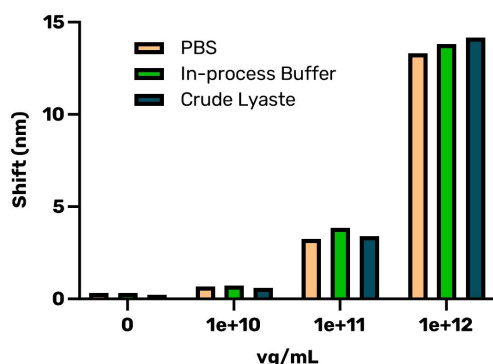


DYNAMIC RANGE AND PRECISION



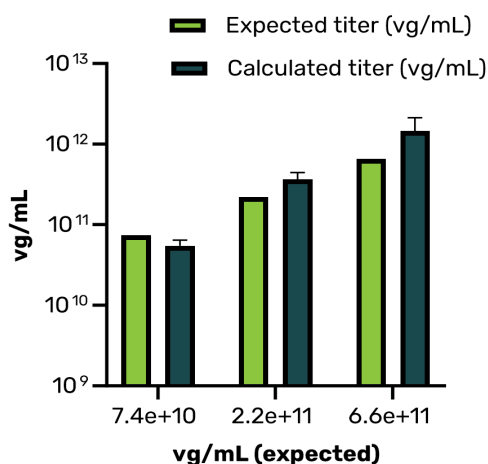
AAV genome titer dynamic range from 4E+09 – 3E+12 vg/mL. The % CV values for all data points are <10%. Data was obtained using GFP oligo pair.

COMPARABLE PERFORMANCE FOR AAV GENOME TITER IN DIFFERENT BUFFERS



BLI signal for three different concentrations of AAV8 in PBS, an in-process buffer, and crude lysate.

FULL LENGTH PAYLOAD TITER CORRELATION WITH dd PCR



Expected (dd PCR) vs calculated titer values using biotinylated oligo for SV 40 and fluoresceinated oligo for CMV enhancer.

SUMMARY

The GeneSwift kit accurately determines AAV genome titer and integrity; and offers the following advantages:

- 30 minute assay
- Dynamic range 4E+9 - 3E+12 vg/mL .
- 8, 16 or 32 samples in 35 minutes
- Crude sample compatible
- Capable of genome integrity determination
- Serotype agnostic

RELATED COMPONENTS

The GeneSwift Kits for GFP, CMV Pr-En and SV40 shown below also include Oligo Pre-mixes and Calibrators.

Gator® GeneSwift Kit - GFP, Part No: 350007,

- GFP Oligo Pre-mix
- GFP Calibrator

Gator® GeneSwift Kit -CMV Pr-En Part No: 350008

- CMV Pr-En Oligo Pre-mix
- CMV Pr-En Calibrator

GeneSwift Kit - CMV Pr-En will only work if both the CMV promoter and enhancer are present

Gator® GeneSwift Kit - SV 40, Part No: 350010

- SV 40 Oligo Pre-mix
- SV 40 Calibrator

