



## Gator® High Sensitivity (HS) AAV Kit

Part No. 350003

## Overview

Gator® High Sensitivity (HS) AAV Kit is a high sensitivity assay to quantify adeno-associated virus (AAV) capsid concentrations for AAV serotypes 1-8 at all stages of viral vector development in multiple matrices. It combines high sensitivity from a signal amplification step, and ease of use from the inherent simplicity of the Gator® Biolayer Interferometry (BLI) platform. The HS AAV Kit delivers accurate quantitation over a broad dynamic range of  $5\text{E}+06$  to  $5\text{E}+10$  viral particles (vp)/mL for most serotypes. The proprietary surface chemistry makes the quantification of AAV serotypes highly robust and precise.

## Performance Summary

- Dynamic range:  $5\text{E}+06$  –  $5\text{E}+10$  vp/mL
- Limit of Detection (LoD):  $1\text{E}+06$  vp/mL
- Throughput: 8 samples in 35 minutes;  
24 samples in 99 minutes
- Precision: CV <10%

## Product Components

HS AAV Detection (Solution A) at 10X	2 mL
HS AAV Amplification (Solution B) at 10X	2 mL
HS AAV Substrate (Solution C) at 1X	25 mL
Q Buffer	350 mL
HS AAV Probes	96 probes

## Materials Required

Gator® Max Plate	Part No. 130062
Gator® BLI 96-Flat Plate	Part No. 130260
Precision Pipettes	User Supplied
Sterile Pipette Tips	User Supplied

## Storage

Store HS AAV probes (Part No. 350003) at room temperature (RT) in their foil packaging pouch, ensuring that the zipper is fully sealed to avoid humidity/moisture contamination. Probes are stable at RT for 1 year. Store HS AAV Reagent Set at 4°C; unopened reagents are stable up to 6 months. Once reagents are diluted, the kit is stable at 4°C for 1 month.

## General Methods

## Sample Volume

- Black Plate (96-well): 200  $\mu\text{L}$  (180  $\mu\text{L}$  minimum)
- Black Plate (384-well): 100  $\mu\text{L}$  (80  $\mu\text{L}$  minimum)
- Max Plate: 250  $\mu\text{L}$

## Prewet Conditions

- 180 sec at 1000 rpm in Q Buffer

## Reagent Preparation

Dilute Solution A and Solution B, each in 18 mL of Q buffer, and mix thoroughly. Diluted solutions are stable for 1 month at 4°C.

## Quantification

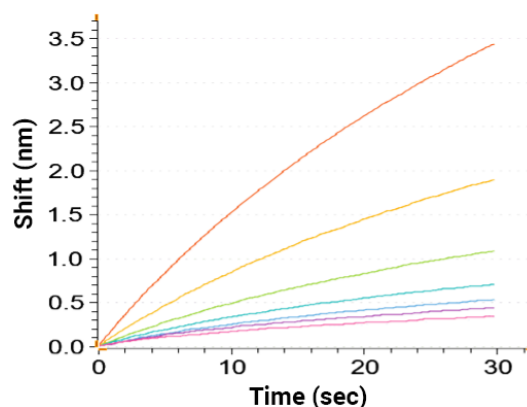


Figure 1. The concentrations of AAV5 in Q Buffer range from  $3.13\text{E}+06$  –  $1\text{E}+08$ , serially diluted at 1:2.



## Gator® High Sensitivity (HS) AAV Kit

Part No. 350003

## Sample and Standard Preparation

- Prepare AAV standards in Q Buffer.
- Dilute crude samples in Q Buffer. A 1:10 starting dilution is recommended.
- Use the same sample maxtrix that the samples are in as a Reference, at the same dilution factor in Q Buffer that the rest of the samples are diluted at. Subtract the Reference from the sample readings.
- For a detailed protocol on sample preparation and setting up the HS AAV assay, refer to the Gator® HS AAV Protocol document.
- Test several dilutions of the sample to ensure that the AAV concentrations fall within the recommended dynamic range, as provided in the HS AAV Protocol.

## Recovery in Crude Samples

AAV5 Conc (vp/mL)	Signal (nm shift)	Calculated Conc (vp/mL)	% CV (Calculated Conc) n=3	% Recovery
1.06E+08	1.93	8.73E+07	2.8301	82.22
5.33E+07	1.04	4.27E+07	2.1964	80.18
1.05E+07	0.38	9.38E+06	7.6104	88.92

**Table 3.** Signal (nm shift), % CV and % recovery for AAV5 in HEK 293-T cell lysate diluted 1:10 in Q buffer. The recovery for samples spiked with different AAV concentrations is over 80%.

## ORDER ONLINE BELOW:

[www.gatorbio.com](http://www.gatorbio.com)

Part No: 350003 – Gator® High Sensitivity (HS) AAV Kit