

# Streptavidin (SA) Probes

Catalog No. 160002

## OVERVIEW

Gator™ Streptavidin (SA) Probes are useful for the study of biotinylated proteins. The proprietary surface chemistry allows for capture of both biotinylated proteins (with a recommended molar coupling ratio of less than three) or proteins expressed with an AviTag™. Following capture, the ability of the biotinylated protein of interest to bind to secondary proteins can be measured to determine the  $k_{on}$ ,  $k_{off}$  and  $K_D$  of interaction.

## MATERIALS REQUIRED

Streptavidin Probes	Catalog No. 160002
Max Plate	Catalog No. 130062
Black Plates	Greiner 655209
Kinetics (K) Buffer	Catalog No. 120011

## STORAGE

Store at room temperature in the foil pouch, ensuring zipper is fully sealed to avoid humidity/moisture contamination. In high-humidity environments, storage inside a dry cabinet is recommended.

## GENERAL APPLICATIONS

1. Kinetics studies of protein-protein interaction
2. Indirect quantitation assays

## GENERAL METHODS

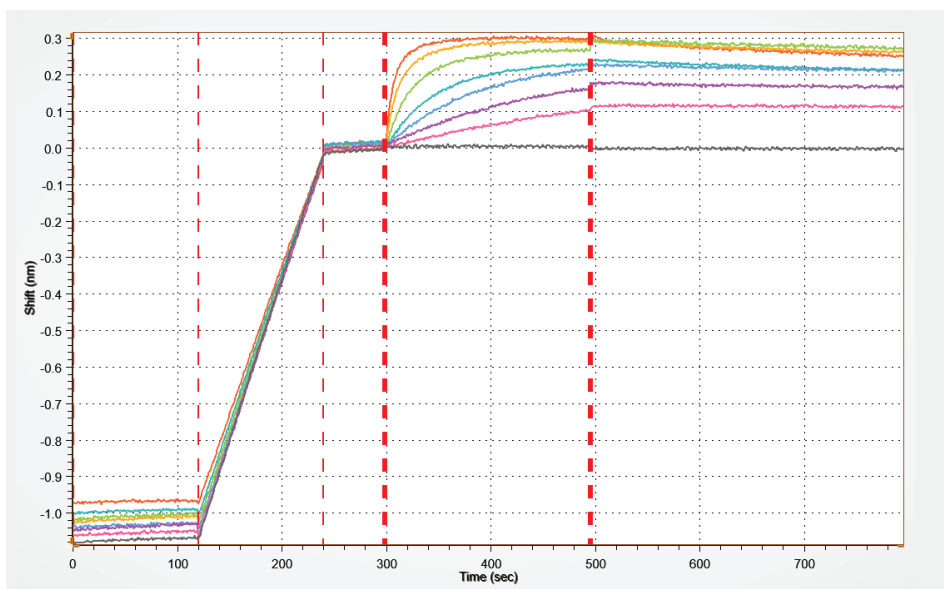
### Sample Volume

Black Plate: 200  $\mu$ L (180  $\mu$ L minimum)

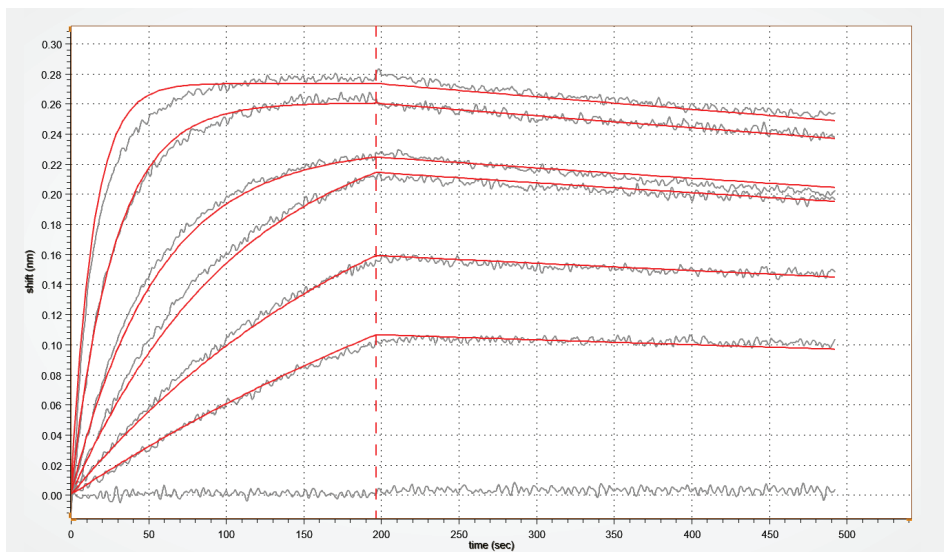
Max Plate: 250  $\mu$ L (280  $\mu$ L maximum)

### Pre-wet Conditions

250  $\mu$ L assay buffer (Q or K) in Max Plate,  
5 min at 1000 rpm



**Figure 1:** Affinity measurement for protein-protein interactions. Following a baseline measurement in K Buffer, biotinylated rabbit IgG (1  $\mu$ g/mL in K Buffer) was loaded onto SA Probes (400 rpm; 120 sec) followed by association and dissociation of an antigen over a range of concentrations (0 to 500 nM in K Buffer).



**Figure 2:** Global-fit analysis using Gator™ software for antibody-antigen interaction shown in Figure 1.  $K_D = 2.27$  nM ( $r^2 = 0.99$ )