PRODUCT NOTE

Gator® SA XT for Analysis of Proteins and Large Lipid Nanoparticles

Gator® SA XT Probes are designed to capture biotinylated oligos, peptides, and proteins above 1 kDa. Their novel proprietary chemistry with unique optical properties enable at least 3 times higher signal than previous BLI streptavidin probes. Higher signal allows for ligands and analytes to be loaded at much lower concentration, thus helping to conserve precious samples. Further, the same optical properties enable loading of larger biomolecules up to 2 MDa without inverted signal generally observed with traditional BLI.

PRODUCT INFORMATION

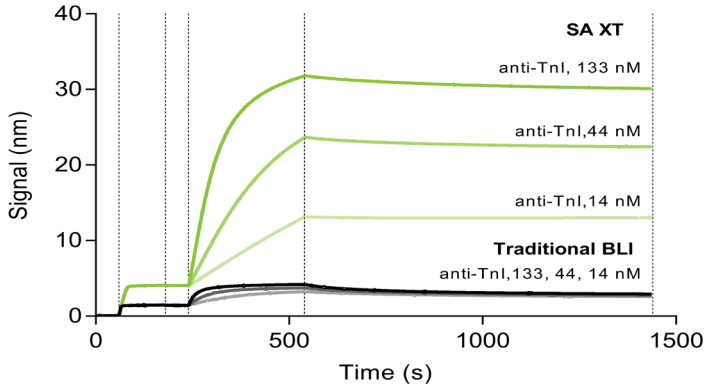
Part Number
160029

Includes
SA XT Probes (96 probes/tray)

KEY BENEFITS

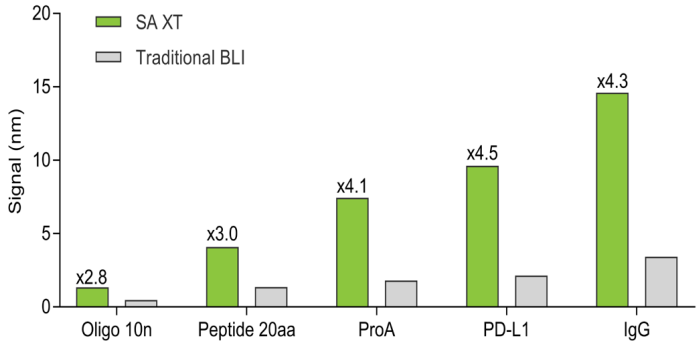
- Accurate K_D for small petides to large proteins.
- 3-5X higher signal allows for lower loading concentration which helps preserve precious samples
- Extended molecular weight range without signal inversion for large biomolecules.

SA XT AND TRADITIONAL STREPTAVIDIN PROBE SIGNAL COMPARISON FOR A PEPTIDE



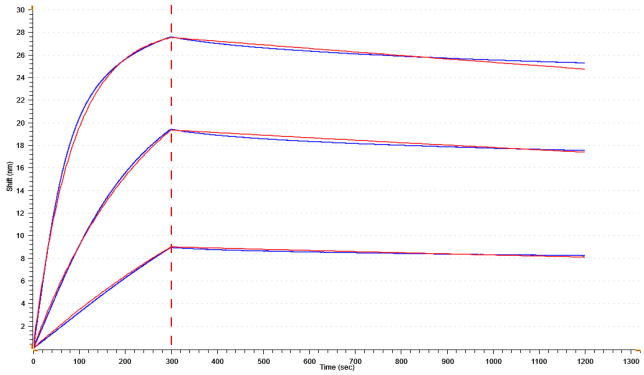
3X higher signal for 1.8 kDa TnI peptide aa23-40 (1 µg/mL in K Buffer) binding and subsequent anti-TnI antibody association and dissociation

LOADING SIGNAL COMPARISON



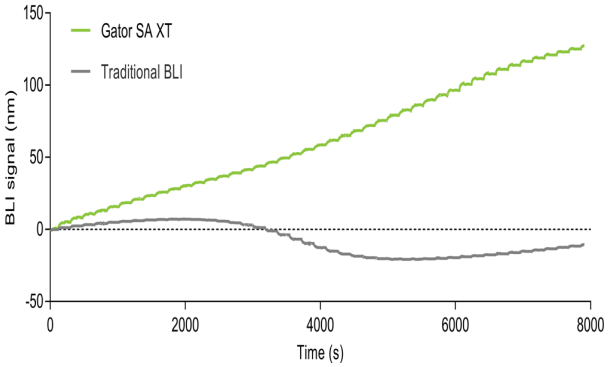
SA XT generates 3-5X loading signal for biotinylated molecules like oligo, peptide, Pro A, PD-L1 and IgG.

HIGH QUALITY FIT WITH R^2= 0.99



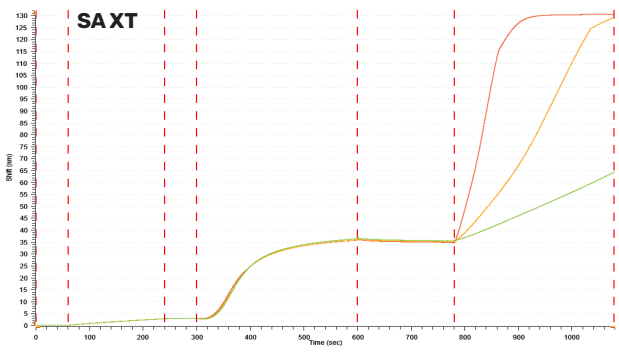
Global-fit analysis for TnI peptide aa 23-40 and anti -TnI antibody at 14, 44 and 143 nM. K_D = 0.72 nM (R^2 = 0.99).

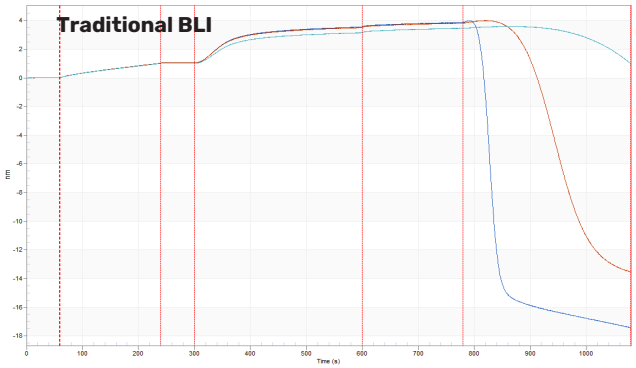
SA XT SIGNAL STAYS POSITIVE FOR LARGE BIOMOLECULES



SA XT continues to show positive signal with repeated loading of Pro A and IgG up to a cumulative thickness of 0.7 µm without the signal inversion observed with traditional BLI,

SA XT AND TRADITIONAL BLI COMPARISON FOR LIPID NANOPARTICLE ANALYSIS





SA XT and traditional BLI streptavidin probes loaded with biotinylated antibody against a moiety on a lipid nanoparticle (LNP) surface. The LNP, with a diameter of 100 nm, was then loaded. SA XT gives a higher loading signal compared to traditional BLI probe for the LNP. Subsequent antibody binding shows a positive signal on SA XT and an inverted signal on the traditional BLI probe.

