

## Dip and Read™ Anti-FLAG Biosensors

For Quantitation and Kinetic Characterization of FLAG-tagged Recombinant Proteins

### KEY FEATURES

- Rapid quantitation of FLAG-tagged recombinant proteins
- Easy capture of FLAG-tagged proteins for kinetic analysis with analyte
- High specificity and high affinity towards FLAG peptide tag
- Allows rapid analysis of purified or crude samples



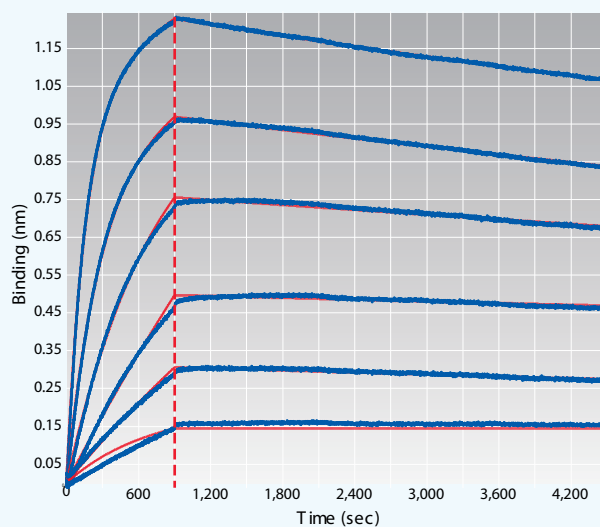
### OVERVIEW

The DYKDDDDK tag, commonly referred to as Sigma's FLAG® tag, is fused to recombinant proteins as a means of facilitating detection and purification. The Anti-FLAG Biosensor consists of Sigma's high affinity ANTI-FLAG® M2 antibody pre-immobilized on a ForteBio biosensor. In conjunction with the Octet® and BLItz® systems, the Anti-FLAG Biosensor provides a rapid and label-free method for FLAG-tagged protein quantitation and kinetic analysis. The high specificity of the antibody-based biosensor enables the direct quantitation of FLAG analytes in crude lysates, column eluents, cell lysates and cell culture supernatants, serving as an alternative to traditional time-consuming analytical methods such as HPLC and ELISA.

### FLEXIBILITY AND VERSATILITY

The Anti-FLAG Dip and Read Biosensor is qualified for both quantitation and kinetic applications. It enables scientists to quickly and easily detect FLAG-tagged recombinant proteins for quantitation measurements, or to capture them for affinity determination with other analytes. Together with the BLItz platform's ease of use or the Octet platform's high throughput, Anti-FLAG biosensors greatly accelerate laboratory workflows and reduce time to results. The BLItz system further enables measurement of precious samples with sample volume requirements as low as 4 µL.

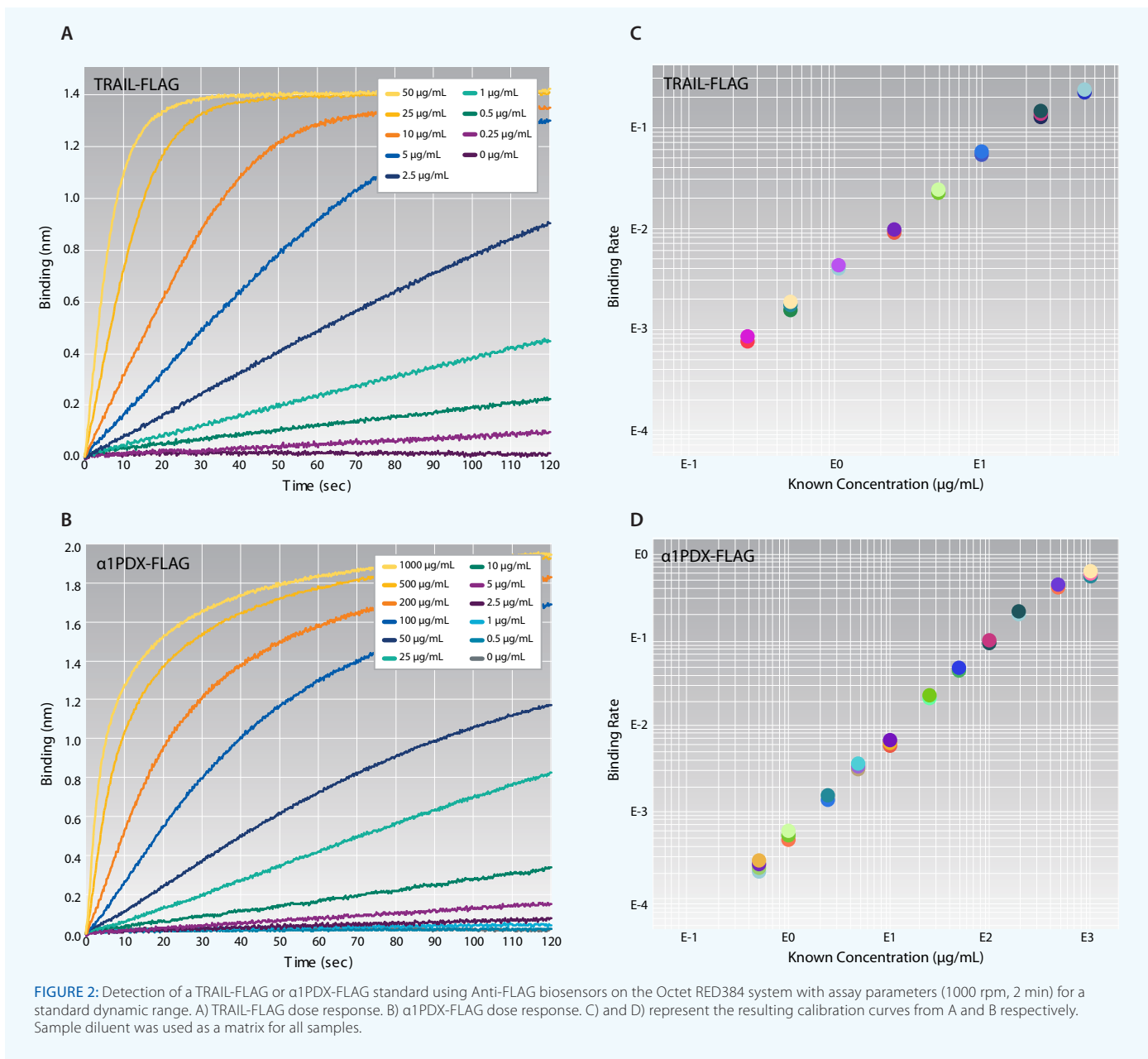
For technical information on Anti-FLAG biosensors, see Technical Note 35 (*Anti-FLAG Biosensor Quantitation Assays*) and Technical Note 36 (*Anti-FLAG Biosensor Kinetic Assays*).



**FIGURE 1:** Kinetic analysis of the interaction between ligand TRAIL-FLAG (23 kDa) and an analyte Mouse anti-TRAIL (150 kDa). 10X Kinetics Buffer was used as the matrix throughout and the assay temperature was 30°C. Data were processed and the curve fit using a 1:1 binding model. The kinetic results are reported in Table 1.

$k_{on}$	$k_{off}$	$K_D$
1.20E+05 1/Ms	2.56E-05 1/s	2.13E-10 M

**TABLE 1:** Kinetic results for the interaction between ligand TRAIL-FLAG and an analyte Mouse anti-TRAIL using Anti-FLAG biosensors.



### RANGE OF APPLICATIONS

The Anti-FLAG Biosensor offers researchers unparalleled ease of use and time-to-result in a wide range of laboratory applications such as:

- Rapid quantitation of any FLAG-tagged proteins
- Affinity characterization of interactions between FLAG-tagged proteins with various binding partners
- Direct capture of FLAG-tagged protein without any chemical modification to the protein
- Efficient workflow for epitope binning, process optimization, and product quality control

### ORDERING INFORMATION

Part No.	UOM	Description
18-5110	Tray	One tray of 96 Anti-FLAG (FLG) Biosensors
18-5111	Pack	Five trays of 96 Anti-FLAG (FLG) Biosensors
18-5112	Case	Twenty trays of 96 Anti-FLAG (FLG) Biosensors