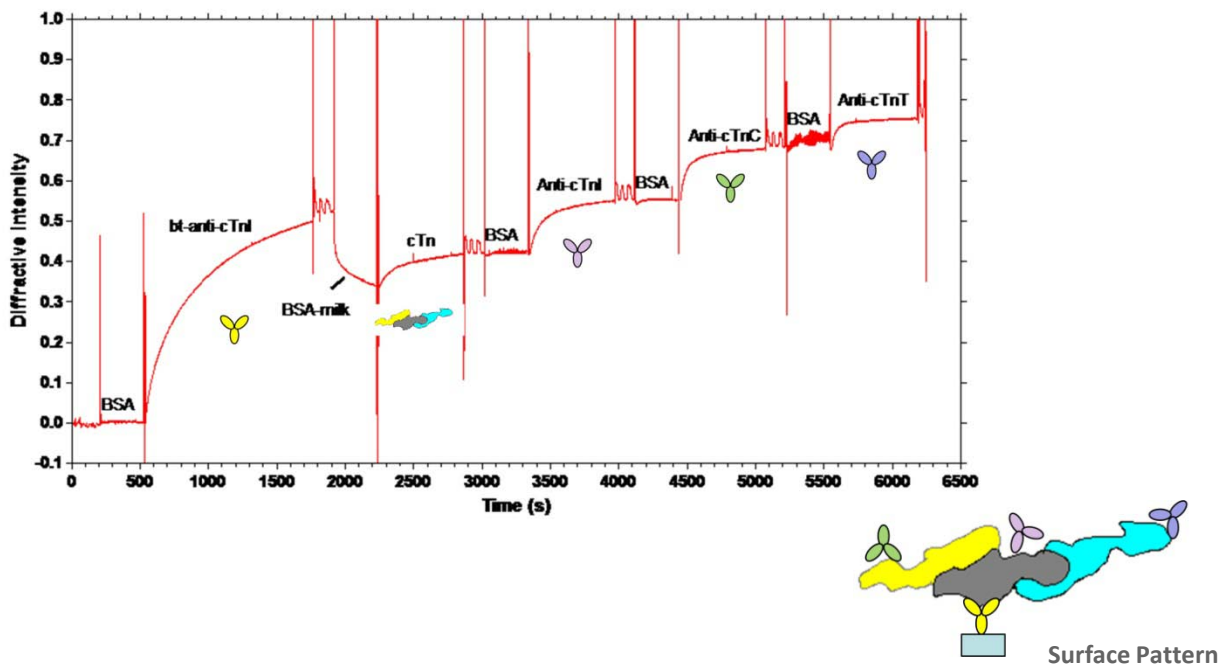


Detection of Protein Complexes

Changes in subunit composition of protein complexes are widely described in various disease states and the ability to easily detect these changes may assist in disease determination and characterization. Traditional approaches require separate assays to be performed for each subunit in the complex. As illustrated below with the cardiac troponin (cTn) complex, subunit characterization of a protein complex can be achieved in a single assay and without the use of labels by using the sequential addition of reagents on the dotLab[®] mX System following the capture of the complex onto a dotLab sensor.



In the example above, a biotinylated antibody against cTnI was used to capture the cTn heterotrimeric complex. Following capture, the sensor was probed sequentially with antibodies against cTnI, cTnC and cTnT with brief washes between incubations. Each of the cTn subunits in the complex were detected in a single assay. (Lin *et al.*, *Clin Chem.* 2010, 56:1307-1319)

Highlights

- Subunit detection in protein complexes in a single assay
- Replaces or compliments existing methods for protein structure investigation such as multiple ELISAs or mass spectrometry