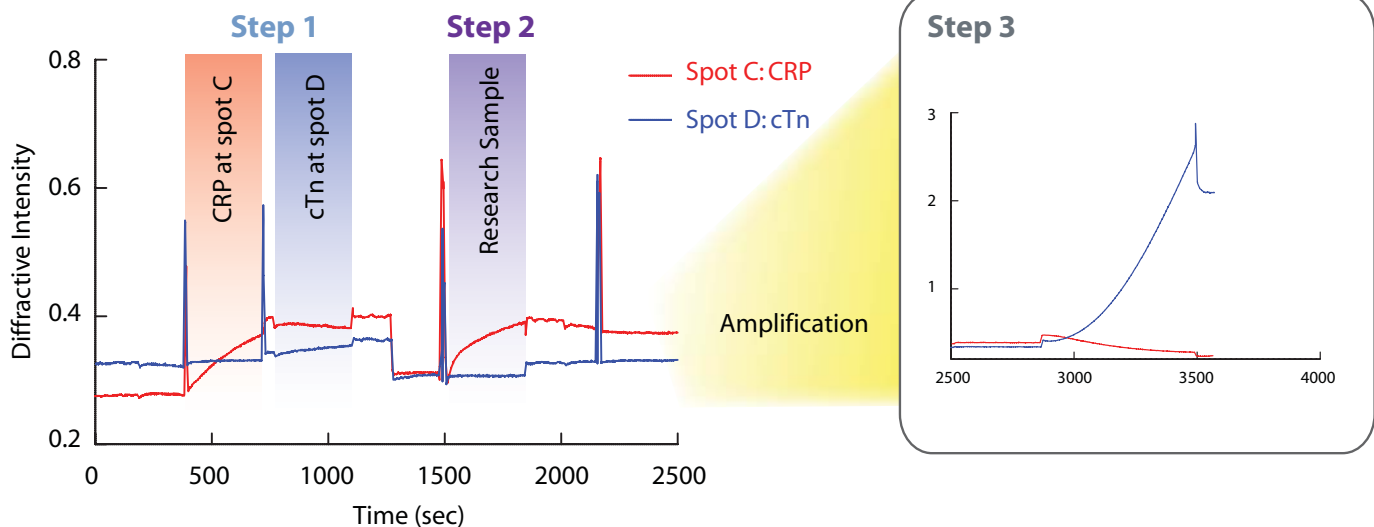


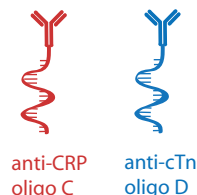
Extended Dynamic Range on Multiplex panelPlus™ Sensors

Analytes that are present in high and low abundance in a sample are difficult to measure in multiplexed assays since their signals often do not fall within the linear range of detection at a single dilution. However, the ability of the dotLab® mX System to sequentially add reagents to analytes on a panelPlus™ Sensors enables the selective amplification of low abundance analytes to provide a detectable signal, thereby eliminating the need for multiple assays at different sample dilutions. To demonstrate the dynamic range on a panelPlus™ Sensor, a duplex assay was performed on C-reactive protein (CRP, a high abundance protein) and cardiac troponin (cTn, a low abundance protein).



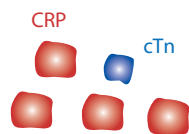
Step 1

Capture antibodies for CRP (red) and cTn (blue) conjugated to panel-Plus™ Labels (C and D) were immobilized at different locations (Spot C and Spot D) on a panelPlus™ Sensor. No cross talk was detected between labeled antibodies and sensor oligonucleotides.

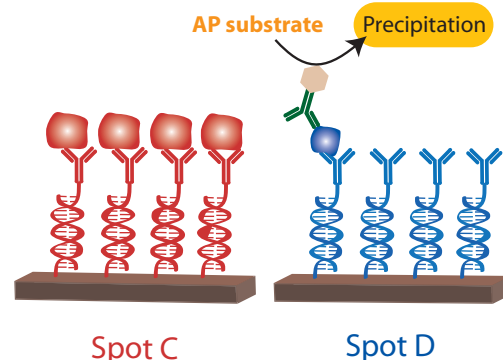


Step 2

When serum sample was added CRP binding was directly detected due to its high abundance while no signal for cTn was observed.



Step 3



cTn binding was amplified using an alkaline phosphatase (AP)- linked anti-cTn detector antibody and a AP substrate.

Highlights:

Sequential probing on the Axela's panelPlus™ Sensor during multiplex assays allows for:

- a variety of signal amplification strategies
- a large dynamic range
- the ability to assay on a single dilution



dotLab®
mX SYSTEM

www.axela.com
info@axela.com

axela™