Confirming InSite™ *L. Mono Glo* results with BAX® X5 PCR

Introduction

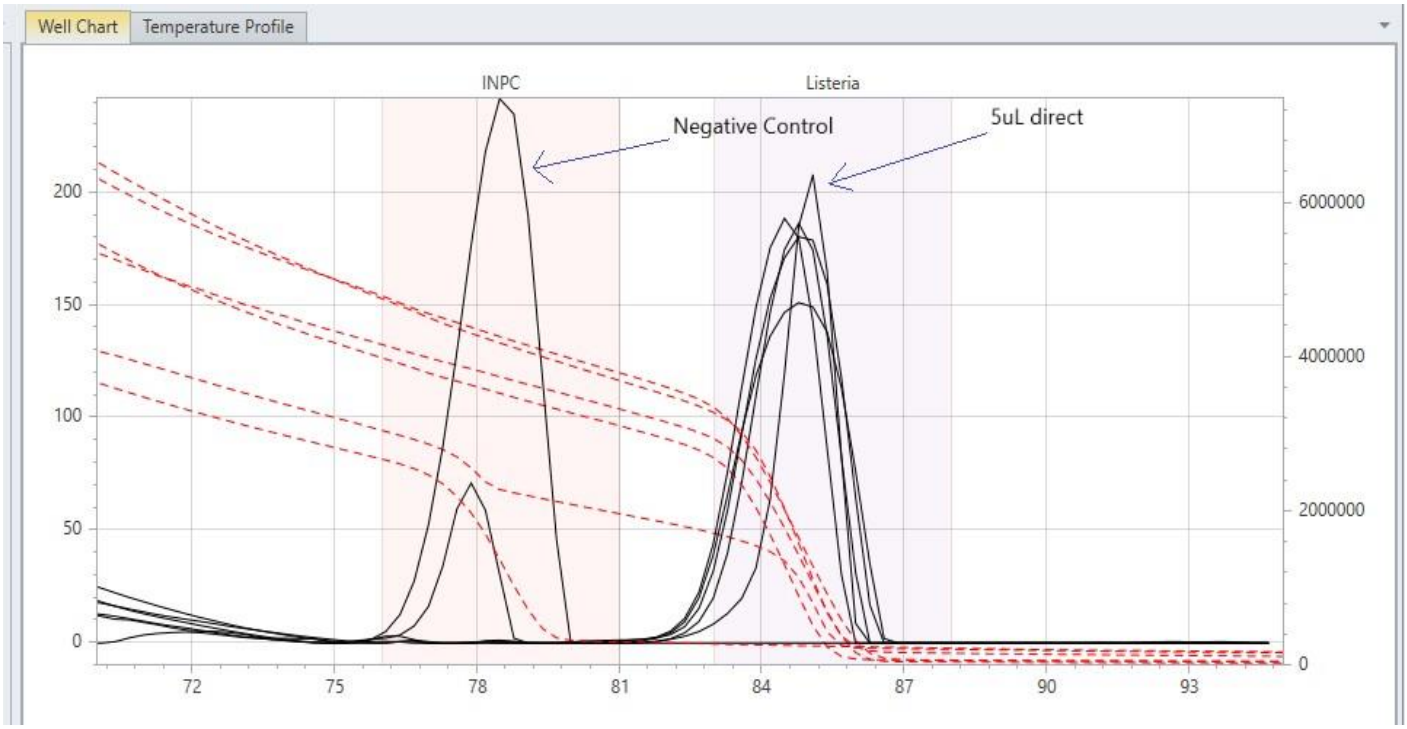
Listeria monocytogenes is a major bacterial problem in food processing, especially in deli, processed and ready-to-eat foods. The European Food Safety Authority and US Food and Drug Administration recently revised rules requiring facilities to use at least one reference testing method to determine the presence of *L. monocytogenes*. This has created stronger interest in finding technologies that can rapidly detect Listeria species and verify the presence of pathogenic *L. mono*.

The Hygiena InSite™ *L. mono* Glo screens for *Listeria* species and *L. monocytogenes* and is designed for environmental monitoring after cleaning. A color change of media from yellow/amber to grey/black is considered presumptive positive for *Listeria* species. Presumptive positive *Listeria* species samples which also exhibit green fluorescence under ultraviolet light indicate the sample is also presumptive positive for *Listeria monocytogenes*.

The Hygiena BAX® X5 system uses PCR technology to provide rapid and accurate results. PCR assays for *L. monocytogenes* and Genus *Listeria* quickly and reliably detect those bacteria. The purpose of this study was to evaluate the compatibility between the InSite *L. mono* Glo device media and the BAX® X5 *Listeria monocytogenes* and *Listeria species* kits.

Results and Discussion

InSite *L. mono* Glo devices inoculated with *L. monocytogenes* provided presumptive positive results for the presence of *Listeria* species and pathogenic *Listeria*. In the chart below, the BAX® X5 *Listeria* genus PCR melt curve appearing between 83-88°C indicates the presence of *Listeria* species. The melt curve (red dotted line) correlates with Insite *L. Mono* Glo data (solid black line). The direct addition of 5 µl of InSite *L. mono* Glo media into the lysis buffer produced the strongest positive signal (arrow).



Conclusions

Directly transfering the InSite media to the BAX® X5 kits provided a strong signal with both genus *Listeria* and *Listeria monocytogenes* kits. Presumptive postive results obtained from InSite L. mono Glo devices can be directly confirmed using the BAX® X5 *Listeria monocytogenes* and Genus *Listeria* species kits. The Hygiena InSite L. mono Glo media is directly compatible with Hygiena BAX® X5 *Listeria* kits and could be used to easility confirm InSite presumptive positive results.