

## **PCRstable™ Case Study**

### **PCR Assay Mastermix Ambient Stabilization Without Lyophilization**

#### **Project Background**

The customer, a major US diagnostic company, won a large federal government contract for development of a PCR-based diagnostic assay. Stabilizing the assay, including the complete PCR mastermix, at ambient temperatures, was a key requirement.

#### **Challenges**

The customer required quick and cost effective iterations of the PCR mastermix concurrent with multiple assays in development. Also, a major assay requirement was the capability to handle direct patient specimens, such as blood, swab, wash, etc.

#### **Why Biomātrica**

Biomātrica's expertise in biostabilization enabled us to quickly and cost-effectively develop ambient mastermix iterations without high volume/high cost infrastructure. This was in contrast to lyophilization, which typically costs \$7000 whether for 10,000 or 10 reactions, and which requires 2 weeks for each iteration. Biomātrica was able to complete each iteration within 2-3 days at ~50% of the cost, and was able to do so working with small reagent batches, enabling us to significantly save our client's valuable reagents.

#### **Results**

Biomātrica achieved over 3 years of ambient stabilization for the client's mastermix. Also, we demonstrated that our solution did not interfere with clinical sample types. An audit by our client's government customer was successful in terms of the stabilization approach, both technically and from a manufacturing scalability point of view.

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