



Co-Primers™

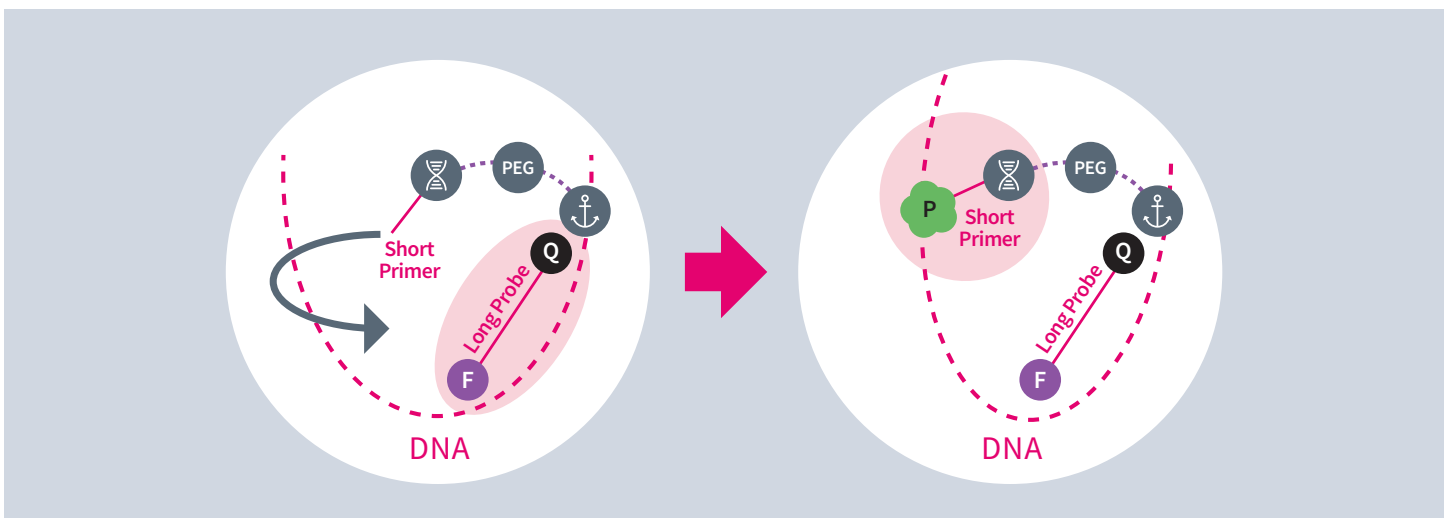
Co-Primers™ are a leading-edge, patented platform technology developed by Co-Diagnostics that dramatically enhances the output of molecular diagnostic tests conducted via real-time polymerase chain reaction (“PCR”) tests.

The unique, proprietary structure of Co-Primers™ molecules creates reactions that are far more specific than competing PCR technologies, to better identify the presence of and distinguish between viruses, pathogens, cancer, or other attributes in agricultural or industrial applications. The prestigious Journal of Molecular Diagnostics deemed Co-Primers™ a TECHNICAL ADVANCE as they are 2.5 MILLION times more effective in reducing amplification errors.

The Co-Primers™ Binding Process

REDUCED PRIMER DIMERS, STREAMLINED OPTIMIZATION, REAL MULTIPLEXING

1. Long PROBE quickly “anchors” bringing the short PRIMER into close proximity with the DNA target
2. The DNA strands fold, allowing the Co-Dx™ short primer to bind
3. When the polymerase extends, the capture (probe) is cleaved, releasing the fluorophore



One of the most important attributes of Co-Diagnostics' **Co-Primers™** technology is the virtual elimination of “primer-dimers,” the principal source of false positives in diagnostic testing. Primer-dimers are essentially the amplification of errors that can take place during the course of a molecular diagnostic test. These errors dramatically minimize the accuracy of the test and lead to false results and/or inaccurate diagnoses.

The importance of test accuracy cannot be overstated, particularly in a medical diagnostic situation. To be able to accurately diagnose a condition will allow for appropriate treatment protocols that can have a profound quality of life impact on a patient. Inaccurate testing for cancer or infectious diseases can be a life or death proposition. By virtually eliminating “primer-dimers” from molecular

diagnostic testing, Co-Primers™ provide unique capabilities of real-time PCR molecular tests.

Co-Primers™ specificity also enables the identification of a broad spectrum of conditions in a single molecular diagnostic test procedure – known as Multiplexing – as opposed to conducting discrete individual procedures. **Multiplexing** enables a single test to identify numerous conditions, attributes, or genetic sequences simultaneously. Multiplexing has enormous implications on cost-efficiencies and time savings in molecular testing, which could prove substantial in a medical situation and in a manufacturing or agricultural setting.

The End Result of Co-Primers™ Cooperativity

A REVOLUTIONARY IMPROVEMENT IN THE TOP THREE OBJECTIVES OF MOLECULAR DIAGNOSTICS

1. Increased Specificity
2. Sharper Sensitivity
3. Mega Multiplexing

Creating a marked reduction in research, design and development costs

Patents no. **10,093,966** and **10,704,087**, both titled “COOPERATIVE PRIMERS, PROBES, AND APPLICATIONS THEREOF,” cover the physical structure, applications, and method for synthesizing a nucleic acid molecule in the structure first developed by Dr. Satterfield in 2012. Co-Diagnostics owns all the intellectual property on which **Co-Primers™** are based.