

## Product Descriptions

The Frontier Genomics SharkaTAQ™ Hotstart Polymerase Master Mix is a pre-mixed 2 x formulation of SharkaTAQ Hot Start DNA Polymerase requiring only the addition of primers, template and H<sub>2</sub>O. Enzyme supplied in an inactive state that has no polymerase activity at ambient temperatures due to a novel patent pending method. Master Mix format reduces pipetting steps and risk of contamination, while increasing reproducibility and throughput. Provides high specificity, yield and sensitivity for use in everyday PCR applications

SharkaTAQ™ Hotstart polymerase is highly purified by column-chromatography and is free of any contaminating exonuclease and endonuclease activities.

## Key Features

- 2x Master Mix format – just add primers, template and H<sub>2</sub>O
- Increased reproducibility and throughput, decreased risks of contamination
- High specificity reduces potential for background amplifications
- Robust enzyme ideal for any PCR application requiring low error rate
- Fast, easy assembly at room temperature
- Direct replacement for more expensive Hot Start Taq master mixes

## Applications

Multiplex PCR

Complex Genomic templates

Complex cDNA templates (*e.g.* RT-PCR)

Very low-copy targets (*e.g.* single-cell PCR)

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## Specifications

Concentration: 5 Units/ uL

Unit Definition: One unit is defined as the amount of enzyme that incorporates 10 nanomoles of dNTPs into acid-insoluble form in 30 minutes at 72°C

SharkaTAQ™ Hotstart Master Mix is supplied as a convenient 2x Master Mix. This buffer contains MgCl<sub>2</sub> (at 1.8 mM final concentration) and detergent.

Cycling conditions:

- (1) 94°C 15 minutes
- (2) 94°C 30 sec
- (3) Anneal temp °C 1 minute
- (4) 72°C 1 min/Kb for 33 cycles
- (5) 72°C 5 minutes