

| Product Information                  |                |
|--------------------------------------|----------------|
| <b>PerfeCTa® SYBR Green FastMix®</b> |                |
| Part Number                          | 95072-05K      |
| Number of Reactions                  | 5000 reactions |
| Reaction Size                        | 20 µL          |
| Storage Temperature                  | -25°C to -15°C |
| Lot Number                           | 66205082       |
| Reference Number                     | 040822         |
| Expiration Date                      | 04/30/2025     |

**Product Description:**

PerfeCTa SYBR Green FastMix is a 2X concentrated, ready-to-use reaction cocktail that contains all components, except primers and DNA template. This rigorously optimized master mix contains of proprietary buffer technology, stabilizers and AccuFast Taq DNA polymerase to deliver maximum assay precision, sensitivity, and PCR efficiency for accelerated or conventional thermal cycling conditions for SYBR Green detection. Dye-based detection methods are critically dependent on highly specific amplification because dsDNA dyes will bind to any amplicon, including off-target primer elongation and primer dimerization. AccuFast hot start Taq DNA polymerase contains a proprietary mixture of ultra-pure monoclonal antibodies that stringently suppress primer elongation prior to the initial PCR denaturation step and allows for setup and multi-day storage at ambient room temperature prior to thermal cycling. AccuFast provides rapid release of fully active enzyme to support accelerated thermal cycling conditions.

**Component Part Numbers:**

84070 Filled, PerfeCTa SYBR Green FastMix, 50.0 mL

| Product Specifications |   |       |       |
|------------------------|---|-------|-------|
| 95072                  |   |       |       |
| Assay                  | qPCR B-actin Plasmid DNA Functional Assay SYBR Green Fast Mix | DNase | RNase |
| Result                 | Pass  | Pass  | Pass  |

**Quality Control Analysis and Specifications:**

**Nuclease Assay:**

**DNase:** DNase activity must be below the detectable limits of 100 pg DNase I equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

**RNase:** RNase activity must be below the detectable limits of 1 pg RNase A equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

**qPCR B-actin Plasmid DNA Functional Assay SYBR Green Fast Mix:** Detection of β-actin from 10 copies to 1 x 10<sup>7</sup> copies. The Cq standard curve analysis must have a coefficient of determination (r<sup>2</sup>) ≥ 0.990 with a slope between -3.20 to -3.70

**Limitations of Use**

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