### Product Description:
PerfeCTa SYBR Green SuperMix low ROX is a user-friendly, 2X concentrated reaction mix that simplifies setup and reduces errors with optimized reference dye and pre-blended AccuVue plate loading dye for visual confirmation of reagent addition and mixing. This proprietary buffer technology stabilizes a high concentration of SYBR Green I dye to ensure maximum optical signal with low abundance or small targets (such as microRNA). Successful detection with a non-specific, dsDNA intercalating dye requires precise target amplification as off-target primer elongation will contribute to overall fluorescent signal and lead to over-reported relative abundance values. This reagent is powered by a highly processive, ultra-pure Taq DNA polymerase mutant with stringent, ultra-pure AccuStart™II antibody hot start technology that allows ambient room-temperature setup and maximal enzyme kinetics after rapid, irreversible denaturation at 95°C.

### Component Part Numbers:
84021 PerfeCTa SYBR Green SuperMix Low ROX 50mL

### Product Specifications

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### 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 β-Actin Plasmid DNA Functional Assay for SYBR Green SuperMix and SYBR Green FastMix:
Detection of β-actin from 10 copies to 1 x 10^7 copies. The Coefficient of Determination ($r^2$) $\geq$ 0.990 with a slope analysis between -3.20 and -3.65