

Product Information	
AccuStart™ Genotyping ToughMix® Low ROX®	
Part Number	95117-05K
Number of Reactions	5000 reactions
Reaction Size	20µL
Storage Temperature	-25°C to -15°C
Lot Number	66241563
Reference Number	102023
Expiration Date	01/31/2026

Product Description:

AccuStart Genotyping ToughMix Low ROX is a 2X concentrated ready-to-use reaction cocktail for PCR amplification of DNA templates that overcomes many known inhibitors of PCR often present in crude samples extracted from environmental specimens, plant tissues, or animal tissues. It is a versatile and robust real-time qPCR reagent that provides maximum sensitivity and PCR efficiency with a variety of fluorogenic probe chemistries, including TaqMan hydrolysis probes. The only user-supplied components are primers, probe(s), and DNA template. Inert AccuVue plate loading dye is compatible with either white or clear PCR plates and helps to minimize pipette error and provides visual confirmation of thorough mixing.

This proprietary formulation has been rigorously optimized to destabilize probes that differ by only a single base-pair substitution to provide precise allelic discrimination for genotyping single nucleotide polymorphisms (SNPs) with either hydrolysis (TaqMan) or FRET-based fluorescent probes.

Product Specifications				
95117				
Assay	RT-qPCR Plasmid DNA Functional Assay	RT-qPCR genomic DNA Functional Assay	DNase	RNase
Result	Pass	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.

RT-qPCR Plasmid DNA Functional Assay: Fast-cycling Real-time PCR detection of log-fold serial dilutions of a control DNA from 10 to 1x 10⁷ copies. Linear regression analysis of cycle threshold versus log input quantity must give a slope of between -3.20 and -3.65 and coefficient of determination (R²) ≥0.990.

RT-qPCR genomic DNA Functional Assay: Real-time PCR detection of single-copy gene in human genomic DNA using activation step of 10 minutes at 95°C. Linear regression analysis of cycle threshold versus log input quantity for a log-fold serial dilutions of human genomic DNA from 10 to 1 x 10⁵ copies must give a slope of between -3.20 and -3.65 and coefficient of determination (R²) ≥0.990 with accurate two-fold discrimination of 500, 1000, and 2000 copies.

Limitations of Use

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This product was developed, manufactured, and sold for *in vitro* use only. The product is not suitable for administration to humans or animals. SDS sheets relevant to this product are available upon request.

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