

Product Information	
AccuStart™ II PCR ToughMix®	
Part Number	95142-100
Number of Reactions	100 reactions
Reaction Size	25µL
Storage Temperature	-25°C to -15°C
Lot Number	66246013
Reference Number	033123
Expiration Date	03/31/2026

**Product Description:**

AccuStart II PCR ToughMix 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. The only user supplied components are DNA template, primers, and molecular grade water.

A key component to AccuStart PCR ToughMix is an ultrapure, highly processive thermostable DNA polymerase that is combined with high avidity monoclonal antibodies. These antibodies bind the polymerase and keep it inactive prior to the initial PCR denaturation step. This enables specific and efficient primer extension with the convenience of room temperature reaction assembly. Similar to Taq DNA polymerase, the activated polymerase in AccuStart II PCR ToughMix possesses 5'→3' DNA

polymerase activity and a double-strand specific 5'→3' exonuclease. The polymerase does not have 3'-exonuclease activity and is free of any contaminating endo or exonuclease activities. PCR products generally contain non-templated dA additions and can be cloned using vectors that have a single 3'-overhanging thymine residue on each end.

**Component Part Numbers:**

**84253 AccuStart II PCR ToughMix 1.25mL**

Product Specifications			
95142			
Assay	4.1KB PCR Functional Assay	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.

**4.1KB PCR Functional Assay:** Negative control must be free of visible product with a single band at ~4.1Kb visible from 35 cycles of PCR using 20ng human genomic DNA.

**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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