**Product Specification**

**Product Description:**
AccuStart II PCR SuperMix is a 2X concentrated, ready-to-use reaction cocktail for routine PCR amplification of DNA fragments up to 4 kb. It contains all components, except primers and template. AccuStart II PCR SuperMix simplifies reaction assembly, improves assay reproducibility, and reduces the risk of contamination. A key component is AccuStart™ II Taq DNA polymerase which contains monoclonal antibodies that bind to the polymerase and keep it inactive prior to the initial PCR denaturation step. Upon heat activation (1 minute at 94°C), the antibodies denature irreversibly, releasing fully active, unmodified Taq DNA polymerase. This enables specific and efficient primer extension with the convenience of room temperature reaction assembly.

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**Component Part Numbers:**
84229 AccuStart II PCR SuperMix 1.25mL

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**Product Specifications**

<table>
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<tr>
<th>Assay</th>
<th>4.1KB PCR Functional Assay</th>
<th>DNase</th>
<th>RNase</th>
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</thead>
<tbody>
<tr>
<td>Result</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
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</tbody>
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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.

**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.

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**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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