Flash-Extract™ PCR Kit

Catalog No.	Pack Size	Kit Components	
AZ-3310	100 reactions	Flash-Extract™ Lysis Solution	ExtremeTaq HiFi Red Mix
AZ-3340	400 reactions	Flash-Extract™ Lysis Solution	ExtremeTaq HiFi Red Mix

Flash-Extract™ PCR Kit provides an ultra-fast, low-cost, and highly efficient method of DNA extraction and amplification from a variety of solid tissues, including mouse tails and ear punches, plant leaves, bacteria, and saliva. Flash-Extract™ PCR Kit includes a proprietary single-tube extraction solution which releases genomic DNA in only 8 minutes, followed by PCR amplification using Azura ExtremeTaq HiFi Red Mix for high performance end-point PCR. ExtremeTaq HiFi Red Mix is a 2x hot-start mixture which also includes an inert red dye to facilitate direct gel-loading.

For the flexibility to accommodate various work-flows, PCR-ready genomic DNA can be used immediately in end-point PCR, used in real-time PCR with SYBR Green or TaqMan Probe based chemistry, or stored at - 20° C.

Storage

Flash-Extract™ PCR Kit is shipped on blue ice and should be stored at –20° C upon receipt.

Table 1. Recommended Starting Material for Efficient Extraction and Amplification using Flash-Extract™

Sample Type	For 100 µl Lysis Solution	For 500 µl Lysis Solution
Tissue*	**0.5 - 10 mg**	**10 – 50 mg**
Plant**	**2.0 - 10 mg**	**10 – 50 mg**
Saliva	**10 – 20 µl**	**50 – 100 µl**
E. coli	**1 colony (0.5 – 2 mm)**	**1 colony (2 – 5 mm)**

*** Includes mouse tail snips, mouse ear punches, mouse organs, and chicken breast**

****Includes ivy and stinging nettle**

Technical Support

For Trouble-shooting and Technical Guidance, please contact us at tech@azuragenomics.com. This product is intended for research-use only.

Extraction and PCR Protocol

1. The DNA extraction process can be carried out in 0.2 mL PCR Tubes or 0.5 mL/1.5 mL microcentrifuge tubes in a thermal cycler or heating block.
2. Thaw Flash-Extract™ Lysis Solution. Please note that Flash-Extract™ Lysis Solution has a cloudy appearance.
3. Add your sample to a tube containing 100 µl Flash-Extract™ Lysis Solution. See Table 1 for guidance.
4. Vortex the tube containing the sample and the lysis solution for 15 seconds.
5. Transfer the tube to a heat block or a thermal cycler and prepare a DNA extract of PCR-ready DNA as follows:

Cycles	Temperature & Time	Notes
1	65° C, 6 minutes	Lysis Step
1	98° C, 2 minutes	Deactivates protease
1	4° C	Alternatively, cool on ice

6. Proceed with a PCR reaction according to the following table:

Component	25 µl Reaction Volume	Final Concentration
2x ExtremeTaq HiFi Red Mix	12.5 µl	1x
Forward primer (10 µM) Reverse primer (10 µM)	1.0 µl 1.0 µl	400 nm 400 nm
DNA Extract*	2.0 µl to 4.0 µl	variable
PCR-grade water	Up to 25 µl final volume	
Cycles	**Temperature/Time**	**Notes**
1	95° C, 2 minutes	Denaturation and enzyme activation
25 - 40	95° C, 15 seconds 60° C, 15 seconds 72° C, 30 seconds per kb	Denaturation Annealing (determined by user) Use 60 seconds extension for multiplex PCR

* Optimal PCR reaction conditions such as amount of DNA Extract may vary and should be determined empirically. If the PCR yields are low or in the case of PCR failure, dilute the DNA extract 1:10 in PCR-grade water. DNA extracts from plant leaves should be diluted 1:10 or 1:100. In the case of DNA smearing or non-specific amplification, increase the annealing temperature or decrease the primer concentration.

Results can be analyzed using agarose gel electrophoresis. ExtremeTaq HiFi Red Mix contains an inert red tracking dye which migrates at the rate of 600 bp and 350 bp DNA in 1% and 2% TAE agarose gels, respectively.