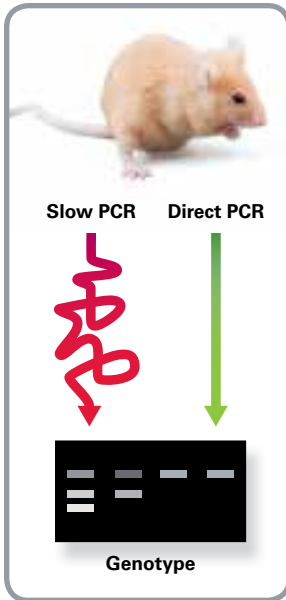


Terra™ PCR Direct

Why isolate DNA before genotyping?

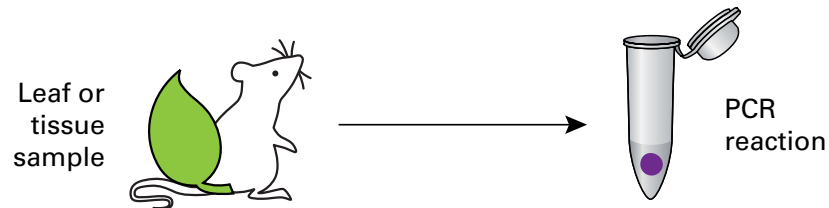


Add tissues directly into your PCR reaction

Direct PCR allows for genome amplification directly from a crude extract or a small tissue sample, without the need for DNA purification. Add your sample directly into the PCR vial!

- **Skip DNA purification.**
An easy protocol with less steps will save you time and money.
- **More robust than inexpensive *Taq*.**
Saving money isn't "savings" if you have to repeat your work!
- **Reliable results.**
Simpler protocol reduces the chance of sample contamination and mix-ups.
- **Direct PCR that works.**
Terra has more buffering capacity than other direct polymerase mixes. Proteinase K is included to improve PCR product migration in gels.

Visit our website



Terra PCR Direct

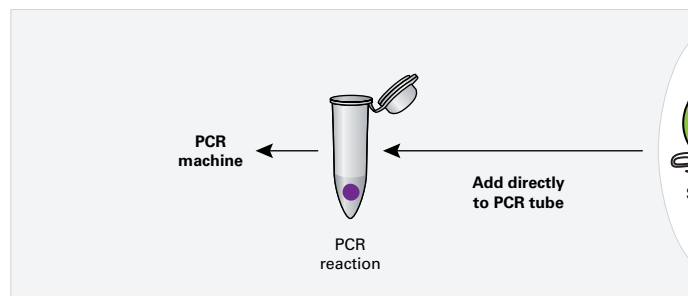
Terra PCR Direct mixes and kits are optimized for direct PCR and allow amplification from a large variety of tissue sources.

- Novel non-*Taq* DNA polymerase designed for direct PCR
- Amplifies templates up to 2 kb and > 70% GC-content
- Includes hot-start antibody for enhanced specificity
- Compatible with one-step and two-step direct PCR protocols

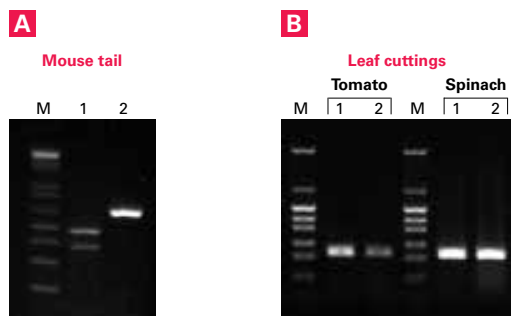
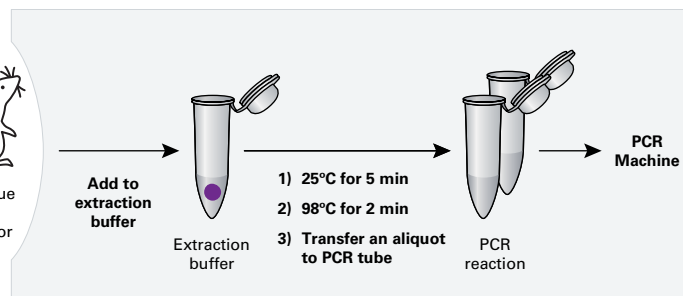
Genomes Amplified Using Terra PCR Direct

Human	Zebrafish	Corn	Mosquito	Moss
Mouse	Cow	Rice	<i>Trichogramma</i>	sporophytes
<i>Drosophila</i>	Sheep	<i>Arabidopsis</i>	Dragonfly	Chestnut
<i>C. elegans</i>	Chicken	Sugar cane	<i>H. pylori</i>	Arugula
<i>Xenopus</i>	Lamb	Cotton	<i>Bacillus</i>	
Yeast/Mycelia	Pig	Soybean	<i>Fusarium</i>	

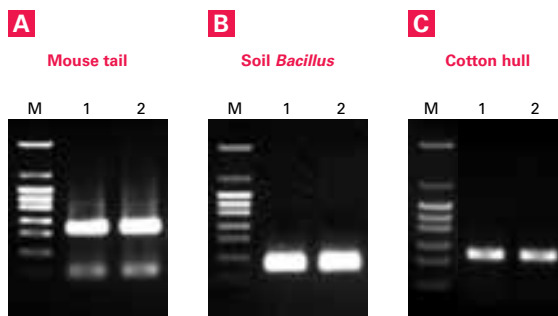
Terra PCR Direct: One-Step Protocol



Terra PCR Direct: Two-Step Protocol



One-step direct PCR. This fast protocol allows for a single experiment and is ideal when resources are limited. Solid samples were amplified using the Terra PCR Direct Polymerase Mix. **Panel A.** *NF1 flox* (Lane 1) and *Cre* (Lane 2) bands from 0.5 mm tail (Data courtesy of Dr. Fe Du, UCSD). **Panel B.** 0.5 mm (Lane 1) and 1.2 mm (Lane 2) leaf punches.



Two-step direct PCR. Requires an initial dilution of the primary sample in extraction buffer. This allows for multiple experiments from one small sample, or long-term storage. Solid samples were amplified using the Terra PCR Direct Genotyping Kit. PCR was performed in duplicate (Lanes 1–2).

PRODUCTS

Cat. #	Product	Description	Package Size
Terra PCR Direct Products for Use with either the One-Step or Two-Step Protocols			
639270	Terra PCR Direct	Use with tissues and crude extracts. Includes polymerase mix, 2X buffer with Mg ²⁺ and dNTPs and proteinase K.	200 rxns
639271	Polymerase Mix		800 rxns
639286	Terra PCR Direct Red Dye Premix	A convenient 2X master mix that contains polymerase mix, buffer with Mg ²⁺ and dNTPs, and loading dye. Proteinase K is included in a separate tube.	200 rxns
639287	Terra PCR Direct Card Kit	Use for blood, buccal samples, and plant material preserved on Whatman FTA cards. Includes polymerase mix and 2X buffer with Mg ²⁺ and dNTPs.	200 rxns
639285	Terra PCR Direct Genotyping Kit	A complete genotyping kit for plant and animal tissues. Includes polymerase mix, 2X buffer with Mg ²⁺ and dNTPs, tissue extraction buffer, proteinase K, and 5X loading dye.	200 rxns
Terra PCR Direct Products for Use with the Two-Step Protocol			
639284	Terra PCR Direct FFPE Kit	Use for paraffin-embedded tissues (skip deparaffinization). Includes polymerase mix, 2X buffer with Mg ²⁺ and dNTPs, DNA recovery buffer, and proteinase K.	200 rxns
638319	Terra qPCR Direct	For real-time PCR from cell lysates & crude extracts. 2X premix includes polymerase mix, buffer with Mg ²⁺ & dNTPs, and SYBR Green I dye. Kit also includes two ROX reference dyes.	200 rxns
638318	SYBR® Premix		400 rxns

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