Check the product label for actual catalog number, lot and expiry date.

SampleIN™ Lysis Set for PCR/qPCR

CAT.#	SIZE	COMPONENTS	COMPONENT COMPOSITION
DPL0101	80 lysis reactions	1.6 ml - DPK Lysis Buffer, 5X 0.8 ml - DPK Protease Buffer, 10X	DPK Lysis Buffer, 5X contains all components required for an efficient lysis of mammalian tissue samples. DPK Protease Buffer, 10X contains proteases to eliminate sample proteins.
DPL0105	400 lysis reactions	5 x 1.6 ml - DPK Lysis Buffer, 5X 5 x 0.8 ml - DPK Protease Buffer, 10X	
Storage	*In the dark at -20°C.*		

APPLICATIONS

- Fast crude sample preparation for direct PCR/qPCR
- Template preparation for direct PCR/qPCR from mouse tail or ear, mammalian tissues (including FFPE), hair follicle, buccal swabs, and blood (including EDTA or FTA samples)

BENEFITS

- PCR-ready crude samples in 15 minutes
- Single-tube fast and efficient DNA release
- High yield PCR and efficient qPCR without tedious DNA extractions
- No material losses, minimized pipetting and hands on time

PRODUCT DETAILS

SampleIN™ Lysis Set for PCR/qPCR is a combination of a lysis buffer and protease-containing buffer allowing for a fast lysis of different sample material to release the DNA in a short time.
The quickly lysed samples contain enough DNA for PCR and qPCR/RT-qPCR applications, eliminating the need of tedious template purification. The set is used to prepare templates for direct PCR or qPCR from mouse tail or ear, mammalian tissues, hair follicle, buccal swabs and blood. It can also be used with some plant materials, if these are not considered as very oily, hard or difficult to lyse.
Rapid 15 min DNA extraction using DPK Lysis and Protease Buffers in a single tube generates crude PCR template extract which can be further amplified using inhibitor resistant, robust PCR or qPCR mixes such as ALLin™ HS Red Taq Mastermix, or SampleIN™ qPCR Probe Mixes.

SAMPLE GUIDELINES

(fresh or frozen)		. vol.
	-5 mg	µl
	^{2} or 3-5 mg	µl
		µl
	^{2} of 10 µm section	µl
		µl
Guthrie cards	^{2}	µl
	^{2}	µl
		µl
	swab	µl
	^{2} well crashed	µl
	(2 mm seed crashed or cut or a crashed seed piece of 2 mm^2	µl

SAMPLE DNA EXTRACTION PROTOCOL

- Take typical measures to prevent contamination, keep your bench clean, wear gloves, and use sterile tubes.
- Thaw DPK Buffers at room temperature. Mix well before use.
- Prepare a 100 µl extraction reaction in a sterile vial (use 3x larger volumes of all reagents for buccal swab):

amount	SAMPLE GUDELINES
Mix very gently. Place into the thermal block/water bath set like:	
	°C - 5 min. Vortex twice during lysis.
	°C - 10 min

- Add 900 µl of PCR Water. Mix carefully.
- Centrifuge 1 min to pellet cell debris. Carefully remove the supernatant into the sterile tube and discard the tube with debris.
- Store the supernatant (lysate) on ice or at +4°C for an immediate use in PCR or qPCR reaction.
- You can store samples at -20°C for several months. But note, that the PCR yield and quality will be the best when used immediately.
- Do not use more than 1 µl of the lysate for each 10 µl of the PCR/qPCR reaction volume. For the most correct results, perform serial dilutions of the lysate 1:10 and 1:100 with nuclease free water, and use well-diluted lysates to minimize inhibitory effects.
- 3 minutes initial PCR denaturation at 98°C helps to prevent inhibitory effects with crude samples.
- Perform PCR or qPCR using inhibitor resistant, robust PCR or qPCR mixes such as ALLin™ HS Red Taq Mastermix, or SampleIN™ qPCR Probe Mixes.
- This Set is not tested with RNA templates and RT-qPCR. For use with RNA, we suggest adding RNAse Inhibitor in every step of sample handling.

DIRECT PCR PROTOCOL EXAMPLE

- Always Include a no-template control and positive control in parallel.
- Thaw and keep PCR reagents on ice. Mix well before use.

✓Prepare a 50 µl PCR reaction:	
	-0.4 µM final each (≤ 2 µl of 10 µM)
	-5 µl of lysed (or 1:10 to 1:100 diluted) sample
	µl
™ HS Red Taq Mastermix, 2X	
✓Mix gently. Place into the PCR instrument set like:	
	8°C - 3 min
	°C - 15 sec
	-65°C – 15 sec
	°C – 15 sec/kb (90 sec for multiplex)

Direct qPCR PROTOCOL EXAMPLE

- Always Include a no-template control and positive control in parallel.
- Thaw and keep PCR reagents on ice. Mix well before use.

✓Prepare a 20 µl PCR reaction:	
	-0.4 µM final each (≤ 2 µl of 10 µM)
	(0.4 µl of 10 µM)
	-2 µl of lysed (or 1:10 to 1:100 diluted) sample
	15 µl
™ qPCR Probe Mix, 4X	µl
✓Mix gently. Place into the qPCR instrument set like:	
	8°C - 3 min
	-50 cycles: 95°C - 5 sec
/extension	-50 cycles: 60-65°C – 20-30 sec

IN VITRO RESEARCH USE ONLY

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