OneStep-96™ PCR Inhibitor Removal Kit

Cat. No. D6035 (2x96 well plates/purifications)

ZYMO RESEARCH
The Beauty of Science is to Make Things Simple

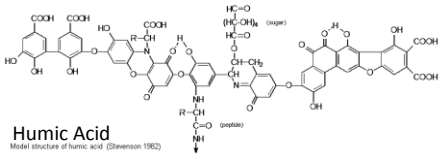
Product Information

Features:

- For high quality DNA or RNA that is free of enzymatic inhibitors including polyphenolics, humic/fulvic acids, tannins, melanin, etc.
- Fast, one-step procedure for "cleaning" impure samples prior to PCR, sequencing, RT, etc.

Description:

The *OneStep-96*™ PCR Inhibitor Removal Kit contains all the components needed to efficiently remove contaminants from DNA/RNA preparations that can inhibit downstream enzymatic reactions such as PCR and RT. The plate matrix has been specifically designed for efficient removal of polyphenolic compounds, humic/fulvic acids, tannins, melanin, etc. from most impure DNA and RNA preparations. High throughput (96 well) sample cleanup is as simple as: applying, spinning and recovering samples from the plate.

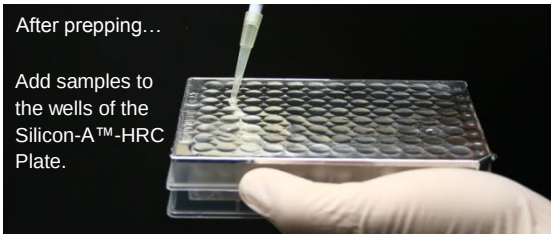


Kit Contents:

	Qty.	Storage Temp.
Prep Solution	30 ml	Room Temp.
Silicon-A™-HRC Plates	2 plates	4 °C-Room Temp.
Elution Plates	4 plates	Room Temp.
Product Information Sheet	1	-

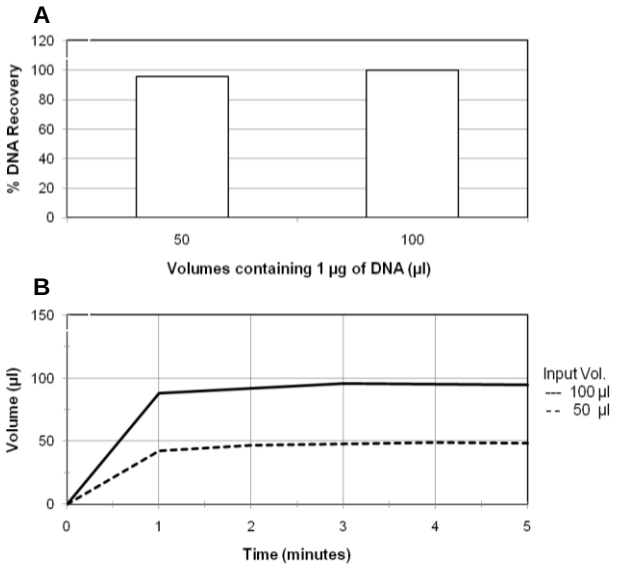
Protocol: (*Note: Make sure the matrices are located at the bottom of the wells of the Silicon-A™-HRC Plate by firmly tapping the plate against a flat surface.*)

Before Starting: The Silicon-A™-HRC Plate needs to be prepared prior to use by: 1) mounting the plate onto an Elution Plate, 2) adding 150 µl Prep Solution to the wells by piercing the cover foil in the middle, 3), waiting for 5 minutes before centrifuging the plate at exactly 3,500 x *g* for 5 minutes.

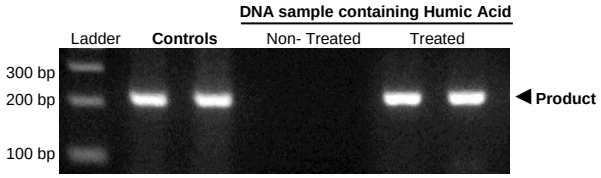


Transfer 50-100 µl DNA or RNA (in water, TE, or similar) through the holes in the foil to the wells of a prepared Silicon-A™-HRC Plate mounted on an Elution Plate. Centrifuge the assembly at exactly 3,500 x *g* for 3 minutes. The filtered DNA (or RNA) is suitable for PCR, (RT), and other downstream applications.

Performance Characteristics of the Silicon-A™-HRC Plate



Figures A & B (above) depict the performance characteristics of the Silicon-A™-HRC Plate . **Figure A** shows that some minor loss of DNA can occur with lower (50 µl) input volumes. However at 100 µl input volumes, the recovery approaches 100%. **Figure B** shows that input volume recovery is complete after 3 minutes for the input volumes tested. In all cases, data were plotted as the mean from experiments performed in triplicate.



DNA is efficiently amplified by PCR following humic acid removal with the *OneStep*™ PCR Inhibitor Removal Kit. The figure shows amplification of a 200 bp product from DNA containing humic acid that was "treated" with the kit. Alternatively, PCR amplification was completely inhibited in the case of the "non-treated" sample. In each case, equal amounts of DNA were used for each PCR and equivalent amounts of the reaction were then analyzed in a 2.0% (w/v) agarose/TAE/EtBr gel. The ladder is a 100 bp DNA marker (Zymo Research). Hot start PCR was performed using Zymo*Taq*™ PreMix (Zymo Research).

References:

Clancy, C.M.R. et al. (2001) *Biochemistry, 40*, 13353-13360.

Stevenson, F.J. (1982) *Humus Chemistry*. Wiley-Interscience, New York.

Also Available:

	Quantity	Catalog No.
***OneStep*™ PCR Inhibitor Removal Kit**	50 spin columns	D6030

	E2003 (50 Rxns.)	E2004 (200 Rxns.)	Conc.	Storage Temp.
Zymo*Taq*™ PreMix	2 x 625 µl	8 x 625 µl	2X	-20°C

Version 1.0.1

ZYMO RESEARCH CORP.

Phone: (949) 679-1190 ▪ Toll Free: (888) 882-9682 ▪ Fax: (949) 266-9452 ▪ info@zymoresearch.com ▪ www.zymoresearch.com