



Frequently Asked Questions for QuickStep™ 2 PCR Purification Kit (Single Cartridges)

Sample Recovery

1. **What is the maximum sample volume?** The maximum volume of PCR product that may be purified on these cartridges is 50 μ l.
2. **What is the minimum sample volume?** The minimum volume of PCR product that may be purified on these cartridges is 20 μ l. Samples < 20 μ l may be brought up to \geq 20 μ l using deionized water.
3. **What size PCR fragments can I purify with QuickStep™ 2 Cartridges?** There is no known **upper** limit to the size of fragment that can be purified. Your recoveries will decrease, however, if you try to purify fragments **smaller** than 100 base pairs.
4. **What will be the final volume of purified sample?** The final volume of the purified PCR product will be 2-5 μ l greater than the original sample volume.
5. **My reactions are <20 μ l. Do you recommend bringing the sample volume to 20 μ l?** Yes. Use deionized water to bring all reactions <20 μ l up to 20 μ l.
6. **I centrifuged the cartridge at a speed much lower than recommended. Can I still recover my sample?** Spin the cartridge at the correct speed for an additional minute. Even though this procedure might “save” your sample, it will not be optimal and you may need to re-run the PCR reaction.
7. **What percent recoveries should I be expecting from use of QuickStep™2 Cartridges?** Expect recoveries of your purified PCR product to be 75%-85% of your unpurified PCR product.
8. **Will QuickStep™ 2 remove primer-dimers?** No. This product will not remove primer-dimers from your PCR reaction.

General

1. **Must I use the SOPE resin in conjunction with the gel filtration cartridges?** Yes. SOPE is critical for the removal of primers, single-stranded DNA, enzymes and other proteins.
2. **There is a crack in the matrix of the cartridge. Will it affect the cartridge performance?** The crack is a normal result of the manufacturing process of the cartridge and does not affect its performance. Take care to avoid the crack when loading sample drop-wise to the center of the gel column.



Frequently Asked Questions for QuickStep™ 2 PCR Purification Kit (Single Cartridges)

- 3. What are the recommended spin conditions?** The initial spin should be performed for 3 minutes at 750 x g. (To enhance yield of 20 µl PCR reactions, perform the initial spin at 850 x g for 3 minutes.) The second spin should be performed at 750 x g for 2 minutes.
- 4. I overlay my PCR reaction with mineral oil before putting it in the thermal cycler. Will the mineral oil interfere with my ability to clean the reaction using QuickStep™ 2 Cartridges?** The presence of mineral oil in excess amounts will interfere with the performance of QuickStep™ 2. If you use mineral oil, remove as much of it as possible prior to purification.

Storage

- 1. What are the storage conditions for the QuickStep™2 components?** Both the SOPE resin and the cartridges should be stored at 4° C.
- 2. I realized the cartridges are frozen. Will this be a problem?** Yes. Once the cartridges have been frozen, they are irreparably damaged and will lead to purification failure.
- 3. I left the SOPE out at room temperature. Will this be a problem?** SOPE may be left at room temp for short periods of time. It must be kept at 4° C for long-term storage in order to retain its efficacy.
- 4. I left the cartridges out at room temperature. Will this be a problem?** Cartridges may be left out at room temperature overnight if sealed in their original foil bags. If cartridges sit at room temperature outside of the bags or for excessive periods of time the gel matrix may become dehydrated.
- 5. Does the gel matrix contain preservatives?** No. The gel matrix is fully hydrated in water.