

QIAcard[®] FTA[®] DMPK Cards

The QIAcard FTA DMPK Cards are intended for molecular biology applications. This product is not intended for the diagnosis, prevention, or treatment of a disease.

Instructions for use

We recommend new users to start with the following guidelines and then to modify them if desired based on experience and goals.

1. Applying biosamples

- Label the card.
- Hold pipette tip or capillary a few millimeters above the card.
DO NOT allow the pipette or capillary to touch the card.
- Expel a 15 µl sample smoothly and quickly (not spraying) as a drop that touches the center of a printed circle of the card. The drop will quickly spread and soak in.
- Dry the card thoroughly (2–3 hours). This is imperative to avoid transfer of sample on contact.
- Ship and store the card desiccated at ambient temperature.

2. Analyzing samples

- Cut a 3 mm disc from the sample area using a UniCore Punch (avoid the edge of the spot).
- Transfer the disc to a labeled tube or multiwell plate.
- Add 100 µl methanol or other good solvent (containing internal standard if desired).
- Vortex-mix gently for 10 min and centrifuge briefly to remove any cellulose fibers.
- Analyze supernatant by HPLC-MS/MS or immunoassay.

3. Possible adjustments for optimization

- Test all three QIAcard FTA DMPK card types initially; then focus on the type giving better results for the analytes of interest.
- Adjust elution time – shorter for good analyte/solvent combinations or longer for weak ones.
- Test other elution solvents – e.g. HPLC mobile phase or aqueous/organic mixtures. Aqueous buffers with or without non-ionic detergent are usually used for protein analytes.
- Use larger sample volumes (up to 50 µl) to allow more discs per sample spot.
- Reduce elution volume, elute from 2 punches, or evaporate the extract and re-dissolve in a smaller volume for increased sensitivity.

Please contact your local sales representative, or visit www.qiagen.com for additional information.

Hints and tips

- It is important to have the sample spread evenly on the card surface as it quickly soaks in, giving a spot area directly proportional in area to the sample volume. The cards are designed and carefully manufactured for reproducible spread.
- Plasma and blood samples often contain an anticoagulant such as EDTA. The cards do not require anticoagulants (as long as the sample has not already begun to clot) but are compatible with them.
- If the pipette or capillary tip was held in contact with the card during dispensing, the liquid flow would tend to be more through the card, encouraging local depletion of the card's chemical components. The flow would probably be more directional, resulting in uneven sample distribution. These results would be more likely to vary between samples and between operators.
- Carryover of analytes from punch to punch is not a problem as long as the cards are thoroughly dry, preventing carryover of fibers. If required, clean the punching tool by cutting a waste disc between samples from an unused part of the card.
- The drug concentration is equally distributed across the entire spot area; however, it is not recommended to take samples from the very edge of the spot.

- Elution of analytes with organic solvents will leave protein precipitated in the cards.
- Coated DMPK-A and DMPK-B cards (both standard and Indicating) contain chemicals to lyse cells and denature proteins. Some of these components will be eluted with the analytes. These do not often interfere in analyte quantitation by HPLC-MS/MS but if necessary interference can be eliminated by adjustment of chromatographic conditions. DMPK-C cards contain pure cellulose without chemical coating.

Ordering Information

Product	Pack size	Cat. no.
QIAcard FTA DMPK-A Card	100	WB129241
QIAcard FTA DMPK-B Card	100	WB129242
QIAcard FTA DMPK-C Card	100	WB129243
Punching and drying		
UniCore Punch 3.0 mm	25	WB100078
UniCore Punch Kit 3.0 mm	4 (including 2 cutting mats)	WB100039
Shipping		
Indicating Desiccant Pack (1000)	1000 (1 g each)	WB100003
Multi-Barrier Pouches, Reseal 7 x 7.37	50	WB100024

Document Revision History

Date	Changes
11/2020	Initial release

In the US, the DMPK cards may be sent via First-Class Mail, Priority Mail, Express Mail, or Package Services mail by following the US mailing packaging requirements (including, where relevant, for Exempt Human or Animal Specimens). Information on the US requirements and section 10.17.9, exempt human or animal specimens, can be found on <http://pe.usps.com/text/dmm300/601.htm#wp1194388>. In other jurisdictions, please check your local mailing laws and regulations before sending sample-bearing DMPK cards through the mail. QIAGEN accepts no liability for your compliance or failure to comply with local mailing laws and regulations (US or otherwise) and it is your responsibility to ensure compliance with all applicable requirements.

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