DBS Collection Kit
- Collection, Storage and Transportation of Dried Blood Spot Samples

General
LipiDx DBS collection kit contains all components necessary for cost-effective collection, storage and transportation of dried blood spot (DBS) samples. It can be conveniently used by both patients and practitioners.

Over the past several years DBS sampling has emerged as a potent sampling method for both qualitative and quantitative bioanalysis. Blood sample is directly soaked on to collection card, dried and transported for analysis to a laboratory equipped with modern analytical, immunological or genomic detection systems. Several studies show that DBS sampling provides compatible results as with those performed with fresh blood samples obtained by conventional blood draws.

Advantages
- Simpler, relatively painless sampling procedure:
- Ideal for Home sampling: No trained Phlebotomist required and samples can be collected by the patients’ themselves.
- No need for maintaining a cold chain for transportation and storage of the samples: Most analytes in DBS are stable at room temperature for at least a week.
- Reduced biohazard: DBS sampling poses reduced biohazard as many viruses known to be present in serum or plasma lose infectivity as a consequence of disruption of their envelope on drying.
- Significant Cost-reduction: Cost reduction for tech time, sample collection, storage and transportation by DBS as compared to wet samples can be several folds.

Applications
DBS testing is widely used within the fields of Neonatal Metabolic Screening, Diagnostics, Forensics, Health and Wellness, Clinical and Preclinical Pharmacokinetics and Toxicokinetics studies and Therapeutic Drug Monitoring. It is particular useful for field research. DBS is routinely used to measure metabolites (lipids and amino acids), nucleic acid (DNA and mRNA) and proteins (hemoglobin, cytokines etc.) both qualitatively and quantitatively.

www.lipidx.com/dbs-application/ lists a selected number of analytes that can be measured using DBS kits.

Customized Service
To expand your options for data collected on a card, LipiDx can customize DBS kits so that it is more suited for your specific application. We can customize DBS kits to include your Institution specific information such as address and logo on printed boxes and envelopes. Instructions for sample collection and shipping procedures can be customized to suit your specific purpose. If required, we can include documents like Informed Consent Form, Case Report Form, Lab Request Form or Patient Release Form in the kit suit your purpose. Any specific barcode preferences (sequential and non-sequential) can be included and data sheets can be customized for optical character recognition (OCR).
**DBS Collection Protocol**

Drops of whole blood sample are collected by finger, toe or heel prick with the aid of sterile disposable lancet. A typical drop of blood contains about 50μl of whole blood. It is necessary that the blood is collected ensuring it is absorbed evenly across the filter paper and the blood spot is symmetric and circular.

After sample collection, the DBS cards are dried, packed and shipped to analytical laboratories through mail, courier or express mail delivery services. DBS samples can be shipped and stored at ambient temperature.

1. Choose a finger tip (ring finger recommended) and clean well with the alcohol cleaning pad. Allow finger tip to dry.

2. Open Sample Collection Card containing two collection paper flaps.

3. Take out the green, single use lancet. Turn the narrow green plastic stopper 1/4 turn counterclockwise. Pull out the stopper and dispose.

4. Place the lancet on the finger tip and push the top of the lancet against finger until you hear a click.

5. Place at least 3 drops of blood onto each of the two paper flaps in the sample collection card.

6. Air-dry blood spots before closing Sample Collection Card.

7. Put the closed Sample Collection Card with dried blood into the metal bag together with silica pouch and seal.

8. Put the sealed metal bag and any document that must be completed and signed into the return envelope and seal.

*More information is provided in the DBS Collection Kit.*