

Sample shipping checklist: meeting Nightingale's analysis requirements

Nightingale's high-throughput biomarker profiling is a highly automated service, which means that your sample shipment needs to meet certain requirements to fit our analysis process. Please read this checklist carefully and use it to make sure that your samples comply with our key requirements. Please note that if one or more of them are not met, the required manual laboratory work will be invoiced separately (the minimum fee is 720 €). If you have any questions, please contact us at logistics@nightingalehealth.com

Shipping task	Requirement for your samples and shipment	Potential repercussions	Done
<i>Sample preparation</i>	Ensure there is sufficient sample volume.¹ We recommend well plates; if not feasible, we also accept tubes. Use identical well plates (or tubes) across the batch. Provide each sample in one well (or tube).	We may be unable to perform the analysis. We may need to invoice the manual laboratory work required to achieve uniformity across the batch and to pool samples.	
<i>Preferred sample containers: 96-well plates</i>	Use well plates with U- or V-shaped wells. Seal each plate with an aluminum sealing foil, a silicon rubber sealing mat, or similar. Keep at least two wells empty for our controls. Leave the first empty well randomly on the first column (A1-H1). If it is not possible to randomize, use location B1. The second empty well needs to be H12.	If there is insufficient volume for accurate aspiration of sample, we may be unable to perform the analysis. We may need to invoice the manual laboratory work.	
<i>Secondary sample containers: tubes</i>	Use tubes with a conical bottom. Use screw caps or push/snap caps, <u>if possible</u>. Use tubes with an outer diameter of less than 13 mm (including the label on the tube too). Do not use tape/parafilm.	If there is insufficient volume for accurate aspiration of sample, we may be unable to perform the analysis. We may need to invoice the manual laboratory work caused by ensuring the tubes fit in the preparation racks.	
<i>Sample IDs</i>	Make sure all samples in well plates (or tubes) have unique IDs. We recommend machine-readable QR codes, bar codes or printed IDs. If you use handwritten codes, make sure they are readable.²	We may not be able to correctly identify the samples.	

¹ The analysis requires a minimum of 100 µL (blood), or 500 µL (urine) of sample material. To ensure that the required volume can be aspirated from your vials, we recommend sending a larger volume for the 100 µL blood analysis and the urine analysis, for example 125 µL and 600 µL, respectively. For urine, the larger volume enables sufficient aspiration in instances where there is some precipitate (e.g. protein) in the sample.

² We prefer samples marked with machine readable codes (QR/barcode) but accept human readable versions if they are clear. Printed sample codes are preferred to hand-written ones. Please note that if you do not have QR/barcodes on the samples, our laboratory will register the samples based on the electronic ID list/sample manifest, which means you need to make sure all samples in the boxes are in the order indicated in the list. If the identification code on the sample is different from the code in the list, we will use the former for identification.

<i>Sample manifest / ID list</i>	Make sure you provide an electronic sample manifest³ (ID list) that includes the sample codes and locations in boxes/on well plates. Make sure the codes in the manifest and the samples in the boxes are in the same order. Include a printed version of the sample manifest in the shipment and mark your 5-digit NGH project number in the sample manifest (e.g., NGH 12345, can be found in the Order Form or in case of a web order, in the Order Confirmation).	There may be a delay with your results, as we cannot initiate analysis without a sample manifest. We may need to invoice the manual laboratory work caused by having to identify and rearrange the samples.	
<i>Packaging</i>	Mark your 5-digit project number on each cryobox and shipping container (e.g. NGH 12345).		
<i>Agreeing on shipping date</i>	Agree on the preliminary shipment timeline with us and wait until you receive the shipping address from us.	We want to ensure your shipment arrives at a time when our laboratory is open.	
<i>Courier communications</i>	Arrange the shipping with your chosen courier – points to address: - Use secondary leak-proof packaging and outer packaging⁴ - Ensure dry ice and consider replenishment to keep the samples frozen throughout the duration of the shipping - Consider temperature logger - Provide proforma invoice (please send it also to us) - Use DDP as term of delivery (duty and VAT included)	Please note that you are responsible for arranging the shipment and for the cost of collecting, handling, and shipping the samples to our laboratory.	
<i>Agreeing on shipping date</i>	Confirm your exact shipping date with us. Wait for green light before shipping.	We want to ensure your shipment arrives at a time when our laboratory is open.	
<i>Informing of dispatch and delays</i>	Send an email confirmation of the dispatched shipment to us with the tracking code, if available. Monitor your shipment and contact us in case of a delay.	Without tracking information, we cannot monitor the shipment, ensure its reception, nor help resolve issues in case of a delay. You will receive an email confirmation of sample arrival from us within 1-2 working days after sample arrival.	

³ Please provide an electronic ID list/sample manifest to logistics@nightingalehealth.com upon shipping. The electronic list needs to include sample IDs to be used in the analysis as well as their places in the well plate/cryobox. Additional information such as sample type, volume, or any internal information you may have is not used in the analysis but may be present in the list.

⁴ The United Nations Recommendations on the Transport of Dangerous Goods Division 6.2 – Infectious substances (United Nations Packing Instruction 650, PI650) instructions must be followed. The packaging must consist of the following 5 components: 1) 96-well plates, sample tubes, or vials; 2) Tubes packed in a sample box; 3) Leak-proof secondary packaging, such as a plastic bag or wrap; 4) Absorbent material inside the leak-proof packaging; 5) Rigid outer packaging (Styrofoam box covered with a cardboard box). Frozen samples are required to be kept frozen in -80°C (dry ice) during the entire transport. When shipping frozen samples with dry ice, the outer packaging must be marked with the text “Dry Ice” or “Carbon dioxide, solid” and “UN 1845” and the net quantity, in kilograms, of dry ice. These markings must be accompanied by the Class 9 label for Miscellaneous Dangerous Goods. The outer packaging must clearly show the text “BIOLOGICAL SUBSTANCE, CATEGORY B.” The text “UN 3373” inside a diamond mark must be visible.