

Section 1

Instrumentation and Material Needed for Use of 4everyone Detection Kits

Equipment Required	Consumables Required
<ul style="list-style-type: none"> Microcentrifuge for 1.5ml tubes (> 8,500 rcf / 10,000 rpm) Microcentrifuge either for <ul style="list-style-type: none"> PCR tubes strips of 8 Microtiter plates (new kit) Mini dry bath with 1.5ml block (heating only, no cooling function necessary) Vortex mixer (3,000 rpm) Microliter pipettes, variable <ul style="list-style-type: none"> Sample preparation: 200µl and 1,000µl PCR setup: 10µl, 100µl, and 1,000µl Microcentrifuge tubes rack for 1.5ml tubes PCR tubes rack for strips of 8 Clean razor or scissors to cut PCR tube strips 	<ul style="list-style-type: none"> PIKA 4everyone Detection Kit™ 1.5ml microcentrifuge tubes filter pipet tips corresponding to microliter pipettes SafeSeal Reaction tubes 70% Ethanol Disposable nitrile gloves Optional: <ul style="list-style-type: none"> PIKA FastOrange® enrichment media (if you will be enriching samples pre-PCR) PIKA 4everyone Functionality Kit™ Calibration materials according to instrument supplier. Please inquire if you need assistance. Trash bag to dispose of used consumables
Facilities Required	Optional: Additional material if you are doing direct qPCR from larger volumes
<ul style="list-style-type: none"> Four outlets (110V-US or 220V-EU / make sure equipment is compatible with your mains voltage) Adapter Socket (Delivered with Cabel Typ F 230V) Computer or tablet access USB or ethernet port with access to network, otherwise, WiFi connection Minimum of 2,5 meter of bench space Refrigerator storage (2-8 °C / 35-46 °F) 	<ul style="list-style-type: none"> 15 or 50 ml centrifuge + additional outlet, 2,700 g rcf / 5,000 rpm 15 or 50 ml centrifuge tubes (conical, non-skirted) 15 or 50 ml tube holder

Section 2

QuantStudio Instrument Setup

Refer to separate Technical Papers to learn how to set up your QuantStudio thermocycler and how to use the plus-minus software.

Section 3

Select Samples for Basic Training

With everyone Detection Kits, you can analyse all sample types which are taken throughout the whole brewing process and also from the environment.

For our basic online training, make sure to have some of the following samples available:

1. Liquid enriched sample, from FastOrange™ Bouillon or other
 - a. Clear sample, enriched, with positive growth
 - b. Yeast containing sample e.g. fermenter or beer before filtration
 - c. Optional: pure yeast sample
2. Optional: Colonies on agar plate or membrane filter

Section 4

Small Instruments and Workspace

Ideally, use two different areas on your bench for sample preparation and for PCR setup, one for microbiology manipulations including DNA extraction up to the cell lysis step, the second for molecular biology meaning pipetting of DNA and the PCR components.

1. For sample preparation, you might use the same area as you are using for microbiology manipulations
2. For PCR setup, it is mandatory to have some extra space reserved which is dedicated only for molecular biology

In case you have only one table area which you need to share for sample prep and PCR setup, then place the centrifuge mid-in as a barrier between microbiology and molecular biology working.

1. Have all items necessary for sample prep on one side of the centrifuge, including pipets
2. Place all PCR corresponding material on the other side of the centrifuge, including mini centrifuge for PCR strips / microtiter plate centrifuge and microliter pipets which are dedicated for PCR only