Instructions for Use
Life Science Kits & Assays

innuPREP TCT Target Concentration Kit Beer

Innuscreen GmbH

Order No.:

845-TC-0030010	10 reactions
845-TC-0030050	50 reactions

Publication No.: HB_TC-0030_e_241106

Manufacturer and Distributor:
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Made in Germany!

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1 Introduction

1.1 Intended use

The **innuPREP TCT Target Concentration Kit Beer** is designed for the concentration of a wide range of biomolecules from beer samples, including circulating free DNA, RNA, viruses, bacteriophages, bacteria, algae, protozoa, and other cellular entities. The kit is applicable to various beer types as well as beer bacteria shake cultures (up to 100 ml). This technology is based on a novel, patent-pending method that efficiently concentrates biomolecules from liquid samples without the need for traditional techniques such as filtration, ultrafiltration, ultracentrifugation, or PEG precipitation.

By concentrating the target biomolecules, the kit enhances the sensitivity and effectiveness of subsequent analytical methods. The concentrated sample can be used for a wide range of downstream applications, including DNA and RNA extraction, microbiological cultivation, immunological assays (e.g., lateral flow tests, ELISA), cell-based assays, microscopy, spectroscopy, flow cytometry, and more. The significant concentration factor provided by this kit increases the sensitivity of downstream applications, thereby improving the detection and analysis of trace biomolecules in complex samples.

CONSULT INSTRUCTION FOR USE

This package insert must be read carefully before use. Package insert instructions must be followed accordingly. Reliability of results cannot be guaranteed if there are any deviations from the instructions in this package insert.

1.2 Notes on the use of this manual and the kit

For easy reference and orientation, the manual and labels use the following warning and information symbols as well as the shown methodology:

Symbol	Information
REF	**REF** Catalogue number.
Σ N	**Content** Contains sufficient reagents for <N> tests.
15 °C 30 °C	**Storage conditions** Store at room temperature, unless otherwise specified.
	Consult instructions for use This information must be observed to avoid improper use of the kit and the kit components.
	Expiry date
LOT	**Lot number** The number of the kit charge.
	Manufactured by Contact information of manufacturer.
	For single use only Do not use components for a second time.
	Note / Attention Observe the notes marked in this way to avoid operating errors for obtaining correct results.

The following systematic approach is introduced in the manual:

- The chapters and figures are numbered consecutively.
- A cross reference is indicated with an arrow (e.g. →"Notes on the use of this manual" p. 3).
- Working steps are numbered.

2 Safety precautions

NOTE
Read through this chapter carefully before use to guarantee your own safety and a trouble-free operation. Follow all the safety instructions explained in the manual, as well as all messages and information, which are shown.

Exercise appropriate caution and attention when handling the materials and reagents included in the kit. Always wear gloves while handling these reagents and avoid any skin contact! In case of contact, flush eyes or skin with a large amount of water immediately.

FOR SINGLE USE ONLY!
This kit is made for single use only!

ATTENTION!
Don’t eat or drink components of the kit! The kit is designed to be handled only by educated personnel in a laboratory environment!

If the buffer bottles are damaged or leaking, wear gloves and protective goggles when discarding the bottles in order to avoid any injuries. This kit is to be used with potential infectious human samples. Therefore, all liquid waste must be considered as potentially infectious and must be handled and discarded according to local safety regulation.

Please observe the federal, state and local safety and environmental regulations. Follow the usual precautions for applications using extracted nucleic acids. All materials and reagents used for DNA should be free of DNases or RNases.

NOTE
Emergency medical information in English and German can be obtained 24 hours a day from:

Poison Information Center, Freiburg / Germany
Phone: +49 (0)761 19 240.

For more information on GHS classification on GHS classification and the Safety Data Sheet (SDS) please contact sds.innu@ist-ag.com.

3 Storage conditions

The kit is shipped at ambient temperature.

All components of the **innuPREP TCT Target Concentration Kit Beer** should be stored dry at room temperature (15 °C to 30 °C). When stored at room temperature, the kit is stable until the expiration date printed on the label on the kit box.

If there are any precipitates within the provided solutions dissolve these precipitates by careful warming. Before every use make sure that all components have room temperature.

4 Functional testing and technical assistance

The IST Innuscreen GmbH guarantees the correct function of the kit for applications as described in the manual. This product has been produced and tested in an ISO 13485 certified facility.

We reserve the right to change or modify our products to enhance their performance and design. If you have any questions or problems regarding any aspects of the **innuPREP TCT Target Concentration Kit Beer** or other IST Innuscreen GmbH products, please do not hesitate to contact us. For technical support or further information in Germany please contact info.innu@ist-ag.com. For other countries please contact your local distributor.

5 Product use and warranty

The kit is not designed for the usage of other starting materials or other amounts of starting materials than those, referred to in the manual (→ “Product specifications”, p. 7). Since the performance characteristics of IST Innuscreen GmbH kits have just been validated for the application described above, the user is responsible for the validation of the performance of IST Innuscreen GmbH kits using other protocols than those described below. IST Innuscreen GmbH kits may be used in clinical diagnostic laboratory systems after the laboratory has validated the complete diagnostic system as required by CLIA’ 88 regulations in the U.S. or equivalent regulations required in other countries.

All products sold by the IST Innuscreen GmbH are subjected to extensive quality control procedures and are warranted to perform as described when used correctly. Any problems should be reported immediately.

NOTE
The kit is for research use only!

6 Kit components

6.1 Included kit components

	Σ 10	Σ 50
REF	845-TC-0030010	845-TC-0030050
TCT Beads (6 g)	10	50
PBS, 1x	200 ml	500 ml
Manual	1	1

7 Product specifications

Starting material:

- Unprocessed Beer (up to 100 ml for the validated workflow with innuPREP Beer Bacteria DNA Kit)
- Unprocessed Beer (up to 500 ml) depending on your own validated workflow afterwards

8 Protocol: Target concentration

1. Transfer 6 g of TCT Beads into a 250 ml bottle.
2. Add 10 ml of ddH_20 to pre-equilibrate the TCT Beads and incubate at room temperature for 2 minutes.
3. Carefully add 100 ml of the beer sample into the bottle. Avoid too much foaming of the beer. Mix the sample and TCT Beads thoroughly to ensure homogeneous distribution. Incubate the mixture at room temperature until the sample has been fully absorbed by the beads. The duration is approx. 3 hours. To accelerate the process, periodic gentle agitation of the container is recommended to facilitate more efficient interaction between the sample and the beads. This shortens the process about 30 minutes.
4. Add 20 ml of 1x PBS to the TCT beads, then shake briefly and immediately transfer the remaining volume to a new vessel by using a serological pipette.

IMPORTANT

- *More beads can be used to reduce the concentration time.*
- *It is possible to run the concentration process overnight.*
- *An initial concentration step can be performed, followed by a secondary one to further reduce the target volume.*

The concentrated sample can be utilized for subsequent DNA and RNA extraction. For automated extraction, we recommend the innuPREP Beer Bacteria DNA Kit PP Mini, while for manual extraction, the innuPREP Beer Bacteria DNA Kit is suggested. These kits are specifically optimized for the extraction of DNA from concentrated beer samples and are suitable for a range of downstream applications, including microbiological cultivation, immunological assays (e.g., lateral flow tests, ELISA), cell-based assays, microscopy, spectroscopy, and flow cytometry. Based on the

high factor of concentration the sensitivity of any downstream application is significantly increased.

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