Instructions for use

STI PLUS- ELITe Positive Control

plasmid DNA control for qualitative assay

ELITechGroup
A BRUKER COMPANY

REF CTR400ING

UDI 08033891486532

CE 0123

IVD

CHANGE HISTORY

<table>
<tr><th>Rev.</th><th>Notice of change</th><th>Date (dd/mm/yy)</th></tr>
<tr><td>02–R</td><td>Compliance with the Regulation (EU) 2017/746 on in vitro diagnostic medical devices (IVDR) requirements.
Update of the Intended use:
• Validation of the products in association with ELITe InGenius (REF INT030) and ELITe BeGenius (REF INT040) instruments
NOTE
The following product batches are still placed on the market as per IVDD till to their expiration dates, according to Article 110 of IVDR. If you have these product batches, please contact ELITechGroup staff to request the related previous version of IFUs
<table>
<tr><th>PRODUCT REF.</th><th>Lot Number</th><th>Expiry date</th></tr>
<tr><td>CTR400ING</td><td>U0724–028</td><td>31/10/2025</td></tr>
</table>
New graphics and content setting of the IFU.</td><td>06/11/24</td></tr>
<tr><td>01</td><td>Expansion of use of the product in association with «ELITe BeGenius» instrument (REF INT040)</td><td>26/09/22</td></tr>
<tr><td>00</td><td>new product development</td><td>-</td></tr>
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1 INTENDED USE

The product **STI PLUS - ELITe Positive Control** is an *in vitro* diagnostic medical device intended to be used by healthcare professionals as DNA positive control in nucleic acids Real-Time PCR assay for the detection and identification of the DNA of *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Mycoplasma genitalium* and *Trichomonas vaginalis* in association with **STI PLUS ELITe MGB® Kit** and the **ELITe InGenius®** and **ELITe BeGenius®** instruments.

2 PRODUCT DESCRIPTION

The product supplies the **STI PLUS Positive Control**, plasmid DNAs at known titre in a stabilizing solution based on Tris-HCl and EDTA, aliquoted into **three ready-to-use test tubes**.

The plasmid DNAs contain regions of the following genes: **dnaB-like** gene (endogenous plasmid) for ***C. trachomatis***, **pivNG** gene for ***N. gonorrhoeae***, **23S rRNA** gene for ***M. genitalium*** and repeated sequence **L23861** for ***T. vaginalis***. The detection of target DNAs, using **STI PLUS ELITe MGB Kit** product in association with **ELITe InGenius** and **ELITe BeGenius** instruments, attests the system ability to detect the DNA of the target genes and consequently the verification of the system (product batch and instrument).

The product contains sufficient reagents for **12 separate sessions** on **ELITe InGenius** and **ELITe BeGenius** (4 sessions each tube), with 20 µL used per reaction.

NOTE

The plasmid DNAs concentration in copies / mL was determined through absorbance measurement by spectrophotometer. There are no WHO approved standards for the target genomic DNAs.

3 MATERIALS PROVIDED IN THE PRODUCT

Table 1

Component	Description	Quantity	Classification of Hazards
STI PLUS Positive Control ref. CTR400ING	plasmid DNAs solution in tube with black cap	**3 x 160 µL**	-

4 MATERIALS REQUIRED BUT NOT PROVIDED IN THE PRODUCT

- Laminar airflow hood.
- Disposable powderless nitrile gloves or similar material.
- Vortex mixer.
- Bench microcentrifuge (~13,000 RPM).
- Micropipettes and sterile tips with aerosol filter or sterile positive displacement tips (2-20 µL, 5-50 µL, 50-200 µL).
- Molecular biology grade water.

5 OTHER PRODUCTS REQUIRED

The reagents for Real Time amplification and the consumables are not included in this product.

To perform the assay the following products are required:

Table 2

Instrument and software	Product and reagents
ELITe InGenius (ELITechGroup S.p.A., EG SpA, ref. INT030) **ELITe InGenius Software** version 1.3.0.19 (or later) **STI PLUS ELITe_PC** , Assay Protocol with parameters for Positive Control analysis.	**STI PLUS ELITe MGB Kit** product (EG SpA, ref. RTS400ING) **ELITe InGenius PCR Cassette** (EG SpA, ref. INT035PCR) **300 µL Filter Tips Axygen** (Corning Life Sciences Inc., ref. TF-350-L-R-S) with ELITe InGenius only **1000 µL Filter Tips Tecan** (Tecan, Switzerland, ref. 30180118) with ELITe BeGenius only **ELITe InGenius Waste Box** (EG SpA, ref. F2102-000)
ELITe BeGenius (EG SpA, ref. INT040) **ELITe BeGenius Software** version 2.2.1 (or later) **STI PLUS ELITe_Be_PC** , Assay Protocol with parameters for Positive Control analysis.	

6 WARNINGS AND PRECAUTIONS

This product is designed for in vitro use only.

6.1 Warnings and general precautions

- Handle and dispose of all reagents and all materials used to carry out the assay as if they were infectious. Avoid direct contact with the reagents. Avoid splashing or spraying. Waste must be handled and disposed of in compliance with adequate safety standards. Disposable combustible material must be incinerated. Liquid waste containing acids or bases must be neutralized before disposal.
- Wear suitable protective clothes and gloves and protect eyes and face.
- Never pipette solutions by mouth.
- Do not eat, drink, smoke or apply cosmetic products in the work areas.
- Carefully wash hands after handling samples and reagents.
- Dispose of leftover reagents and waste in compliance with the regulations in force.
- Carefully read all the instructions provided before running the assay.
- While running the assay, follow the product instructions provided.
- Do not use the product after the indicated expiry date.
- Only use the reagents provided with the product and those recommended by the manufacturer.
- Do not use reagents from different batches.
- Do not use reagents from other manufacturers.

6.2 Warnings and precautions for molecular biology

- Molecular biology procedures require qualified and trained staff to avoid the risk of erroneous results, especially due to sample nucleic acids degradation or sample contamination by PCR products.
- Laboratory coats, gloves and tools dedicated to work session setup are needed.
- The reagents must be handled under a laminar airflow hood. The pipettes used to handle the reagents must be exclusively used for this purpose. The pipettes must be of the positive displacement type or be used with aerosol filter tips. The tips used must be sterile, free from DNases and RNases, and free from DNA and RNA.
- The PCR Cassette must be handled carefully and never opened to avoid PCR product diffusion into the environment and sample and reagent contamination.

6.3 Warnings and precautions specific for the components

Table 3

Component	Storage temperature	Use from first opening	Freeze / thaw cycles	On board stability (ELITe InGenius and ELITe BeGenius)
STI PLUS Positive Control	-20°C or below	one month	up to four	up to four separate sessions* of three hours each

*with intermediate freezing

7 PROCEDURE

The product **STI PLUS - ELITe Positive Control** must be used in association with the product **STI PLUS ELITe MGB Kit** .

The component **STI PLUS Positive Control** is ready to use: a volume of **20 µL** is directly added to the reaction mixture (**STI PLUS PCR Mix**, component of **STI PLUS ELITe MGB Kit**) by the instrument.

Before use, take and thaw the **STI PLUS Positive Control** tube at room temperature (+16 / +26 ° C) for 30 minutes. Mix gently, spin down the content for 5 seconds and keep it on ice or in a cool block.

The complete assay procedure is described in detail in the instructions for use of the product **STI PLUS ELITe MGB Kit**.

The performance characteristics and procedure limitations of the complete assay are described in detail in the instructions for use of the product **STI PLUS ELITe MGB Kit**.

NOTE

The results of Positive Control will be stored by the **ELITe InGenius** and **ELITe BeGenius** instruments and used to set up the Control Charts monitoring the amplification step performances. For each batch of the product **STI PLUS ELITe MGB Kit** the amplification of Positive Control is required. The stored results of the Positive Control amplification will expire **after 15 days**.

8 REFERENCES

K.S. Sriprakash et al. (1987) Plasmid 18: 205 – 214

L. J. Hayes et al. (1990) J. Gen. Microbiol. 136: 1559 – 1566

R.H. Nijhuis et al. (2015) J Antimicrob Chemother 70: 2515 – 2518

P. Kengne et al. (1994) Cell. Mol. Biol. 40: 819-831

E. A. Lukhtanov et al. (2007) Nucleic Acids Res. 35: e30

9 SYMBOLS

REF	Catalogue Number.
	Upper limit of temperature.
LOT	Batch code.
	Use by (last day of month).
IVD	*in vitro* diagnostic medical device.
CE 0123	Fulfilling the requirements of the IVDR Regulation 2017/746/EC for *in vitro* diagnostic medical device. Certification released by TÜV SÜD Product Service GmbH, Germany.
UDI	Unique Device Identification
	Contains sufficient for "N" tests.
	Consult instructions for use.
CONT	Contents.
	Manufacturer.

10 NOTICE TO THE USERS

Any serious incident that has occurred in relation to the device shall be reported to the manufacturer and the competent authority of the Member State in which the user and /or the patient is established. At the moment of the current revision of the IFU, no serious incident or recall with impact on product performance and safety of the device has occurred.

A “Summary of Safety and Performance” will be made available to the public via the European database on medical devices (Eudamed) when this informatic system will be functional. Before the notice of full functionality of Eudamed has been published, the “Summary of Safety and Performance” will be made available to the public upon request by email at emd.support@elitechgroup.com, without undue delay.

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