

Instructions for use

Pneumocystis ELITE Standard

plasmid DNA standard for quantitative assay



REF STD150ING

UDI 08033891486747



CHANGE HISTORY

Revision	Notice of change	Date (dd/mm/yyyy)
02	New graphics and content setting of the IFU	25/07/2024
01	Update for the use of the product in association with «ELITe BeGenius®» instrument (REF INT040)	15/05/2023
00	New product development	09/11//2019

NOTE

The revision of this IFU is also compatible with the previous versions of the kit

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1 INTENDED USE

The product **Pneumocystis ELiTe Standard** is an *in vitro* diagnostic medical device intended to be used by healthcare professionals as a known quantity DNA standard in nucleic acids Real-Time PCR assays for the detection and quantification of the DNA of **Pneumocystis jirovecii (PJ)**, in association with the **Pneumocystis ELiTe MGB® Kit** product and the **ELiTe InGenius®** and **ELiTe BeGenius®** instruments.

2 PRODUCT DESCRIPTION

The product supplies the **PJ Q - PCR Standard**, four levels of Tris-HCl and EDTA stabilized solutions of plasmid DNA at known titre, each aliquoted into **two ready- to use test tubes**.

The plasmid DNA contains the region of **mtLSU** gene of PJ. The detection and quantification of target DNA, using **Pneumocystis ELiTe MGB Kit** product in association with the **ELiTe InGenius** and the **ELiTe BeGenius** instruments, allows to calculate the Calibration Curve of the system (product batch and instrument) for PJ DNA quantification.

The product contains sufficient reagents for **8 separate sessions** on **ELiTe InGenius** and **ELiTe BeGenius**, (4 sessions each tube), with 20 µL used per reaction.

NOTE

The plasmid DNA 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

Components	Description	Quantity	Classification of Hazards
PJ Q - PCR Standard 10⁵ ref. STD150ING-5	plasmid DNA solution in tube with RED cap	2 x 200 µL	-
PJ Q - PCR Standard 10⁴ ref. STD150ING-4	plasmid DNA solution in tube with BLUE cap	2 x 200 µL	-
PJ Q - PCR Standard 10³ ref. STD150ING-3	plasmid DNA solution in tube with GREEN cap	2 x 200 µL	-
PJ Q - PCR Standard 10² ref. STD150ING-2	plasmid DNA solution in tube with YELLOW cap	2 x 200 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 PCR reaction and the consumables **are not** included in this product.

To perform the assay the following products are required:

Table 2

Instruments and softwares	Products and reagents
ELiTe InGenius (ELiTechGroup S.p.A., EG SpA, ref. INT030) ELiTe InGenius Software version 1.3.0.19 (or later) PJ ELiTe_STD , Assay Protocol with parameters for Calibrators analysis.	Pneumocystis ELiTe MGB Kit (EG SpA, ref. RTS150ING) ELiTe InGenius PCR Cassette (EG SpA, ref. INT035PCR) ELiTe InGenius Waste Box (EG SpA, ref. F2102-000) 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 BeGenius (EG SpA, ref. INT040) ELiTe BeGenius Software version 2.2.1 (or later) PJ ELiTe_Be_STD , Assay Protocol with parameters for Calibrators 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)
PJ Q — PCR Standard	-20°C or below	one month	up to four	up to four separate sessions* of two hours each

* with intermediate freezing.

7 PROCEDURE

The product **Pneumocystis ELiTe Standard** must be used in association with the product **Pneumocystis ELiTe MGB Kit**.

The components **PJ Q — PCR Standard** are ready to use: a volume of **20 µL each** is directly added to the reaction mixture (**PJ PCR Mix**, component of **Pneumocystis ELiTe MGB Kit**) by the instrument ELiTe InGenius or ELiTe BeGenius.

Before use, take and thaw the **PJ Q — PCR Standard** tubes at room temperature (+16 / +26°C) for 30 minutes. Mix gently, spin down the content for 5 seconds and keep them on ice or in a cool block.

The complete assay procedure is described in detail in the instructions for use of the product **Pneumocystis 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 **Pneumocystis ELiTe MGB Kit**.

NOTE

The results of the **Pneumocystis ELiTe Standard** will be stored by the ELiTe InGenius and ELiTe BeGenius instruments and used to calculate the calibration curve. For each lot of **Pneumocystis ELiTe MGB Kit**, the calibration curve is required. The stored results of the Q-PCR Standard amplification will expire after **60 days**.

8 REFERENCES

C. Valero et al. (2016) *Front. Microbiol.* 7:1413

M. Maillet et al. (2014) *Eur J Clin Microbiol Infect Dis.* 33(3):331-6

9 SYMBOLS



Catalogue Number.



Upper limit of temperature.



Batch code.



Use by (last day of month).



in vitro diagnostic medical device.



Fulfilling the requirements of the European Directive 98/79/EC for *in vitro* diagnostic medical device.



Unique Device Identification



Contains sufficient for "N" tests.



Caution, consult instructions for use.



Contents.



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