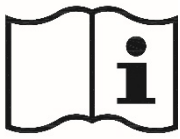


# NEATstik® Airways Elastase Test

## Instructions for use



Version 1.0, created 01-2026



**NEATstik® Airways Elastase Test is a product for Research Use Only.**

NEATstik is a trademark of ProAxis Ltd.

ProteaseTag is a trademark of ProAxis Ltd.

All information contained in this manual was correct at the time of printing. Nevertheless, ProAxis continuously improves its product and reserves its rights to change specifications, devices, and maintenance procedures at any time and without notification.

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### Revision History: PA004-RUO IFU

Revision	Date	Description
V-01	26 Jan 2026	First issue

### 1. Abbreviations and Definitions

Abbreviation	Description
IFU	Instructions for use
NE	Neutrophil elastase
mL	milliliter
g	gram
°C	degree Celsius

### 2. Statement of Intended Purpose

NEATstik® is a single use lateral flow test for the qualitative detection of active neutrophil elastase (NE) in sputum samples. The product is intended for Research Use Only, it has no clinical applicability and should not be used for any clinical diagnostic use.

### 3. Principles of the Assay

NEATstik® utilises the highly innovative ProteaseTag® technology to specifically detect active NE in sputum samples.

NEATstik® consists of a lateral flow test strip enclosed within a plastic cassette. The test strip comprises of a membrane and pads on a solid support with applied **CONJUGATE** and two reaction lines: a **TEST (T)** line and a **CONTROL (C)** line. The conjugate is a mixture of a ProteaseTag® (designed to specifically interact with active NE) and coloured gold particles. The TEST (T) line consists of an antibody which can detect NE and the CONTROL (C) line can detect the conjugate.

Following dilution and gentle mixing of the sputum sample, a small volume is added to the sample port on NEATstik® to begin the testing process. The diluted sample travels along the test strip and interacts with the conjugate. The ProteaseTag® in the conjugate will bind to active NE present in the

sample, travel up the test strip and bind to the TEST (T) line. Excess conjugate will bind to the CONTROL (C) line.

The appearance of the TEST line confirms the presence of active NE in the sample.

The appearance of the CONTROL line confirms that the test has been performed correctly.

#### 4. Reagents and Equipment

##### a. Contents of Kit (individual, PA004-RUO))

1 x NEATstik® lateral flow test in a sealed foil pouch
1 x NEATstik® sample dilution buffer (20 mL)
1 x Sputum dilution pot
1 x Dual bulb pipette
1 x Graduated pipette
1 x Instruction leaflet

**(each multipack (PA004-10-RUO) box contains x10 individual kits)**

##### b. Materials Required but not Provided

- Sputum collection pot
- Weighing scale or balance
- Stopwatch/timer

##### c. Sample Material

The NEATstik® test is intended for use with sputum samples only.

##### d. Storage of Reagents and Consumables

- Store the kit at room temperature.
- Each test kit should be used before expiration date and only used if it remains in original packaging under recommended storage conditions.
- NEATstik® lateral flow test should be used immediately after removal from the sealed pouch.
- NEATstik® sample dilution buffer should be used immediately after bottle opening.

## 5. Warnings and Precautions

- For Research Use Only. Not for use in Diagnostic procedures. The test is only intended for use by laboratory and healthcare professionals appropriately trained in lateral flow techniques and sputum sample handling.
- The sample dilution buffer within the kit contain preservatives which may cause an allergic skin reaction. Do not breathe mist.
- Wear personal protective equipment including gloves, clothing, eye and face protection. Wash hands after handling reagents.
- Refer to product SDS for further information on hazards and safety measures.
- Store all components correctly.
- Use kit before expiry date and only if it remains in original packaging under recommended storage conditions.
- Do not mix or substitute reagents with those from other lots or sources.

## 6. Training

The test is only intended for use by laboratory personnel appropriately trained in lateral flow techniques and sputum sample handling. Please contact ProAxis for information to support performing the NEATstik® test.

## 7. Waste Handling

Waste handling and disposal should adhere with the laws and regulations of the local and national authorities.

## 8. Performing the Test

### a. Collecting the test sample

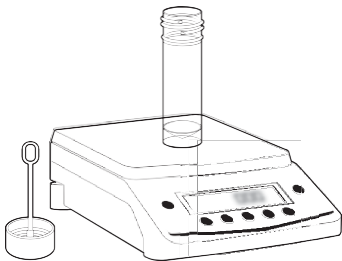
Sputum (not saliva) should be coughed into a sputum collection pot (not provided). It is recommended that test samples are tested immediately.



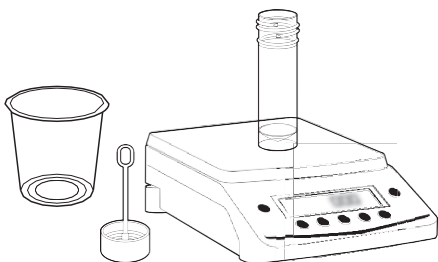
### b. Preparing the test sample

Sputum samples must be diluted before addition to NEATstik®.

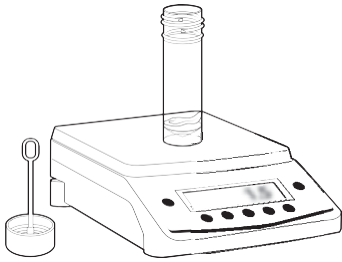
(1) Place the base of the sputum dilution pot on a weighing balance. Tare (zero) the weighing balance.



(2) Keeping the sputum dilution pot on the weighing balance, use the spatula (attached to the lid of the sputum dilution pot) to transfer a very small portion (e.g., 0.1 - 0.5 g) of sputum from the sputum collection pot into the sputum dilution pot.



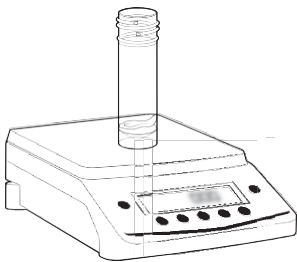
(3) Note the weight of transferred sputum in grams. The sputum dilution pot should remain on the weighing balance.



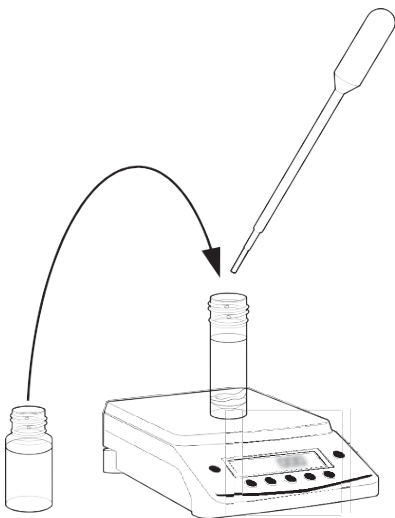
(4) Calculate the quantity of NEATstik® sample dilution buffer needed to produce a x10 dilution using the following calculation:

Weight Sputum = ..... g    x 9    = ..... g NEATstik® Sample Dilution Buffer

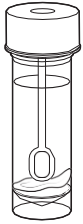
(5) Tare (zero) the weighing balance.



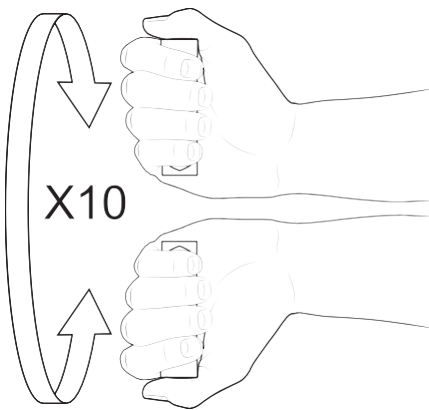
(6) Using the graduated pipette, transfer NEATstik® sample dilution buffer into the sputum dilution pot up to the weight calculated.



(7) Place the lid on the sputum dilution pot and ensure it is tight.



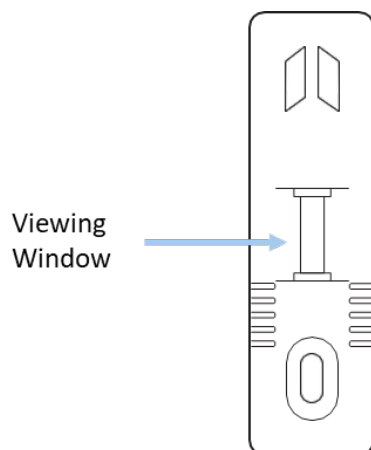
(8) Mix the sputum with the buffer by turning the sputum dilution pot upside-down 10 times.



This image is for demonstration purposes. Wear gloves in practice.

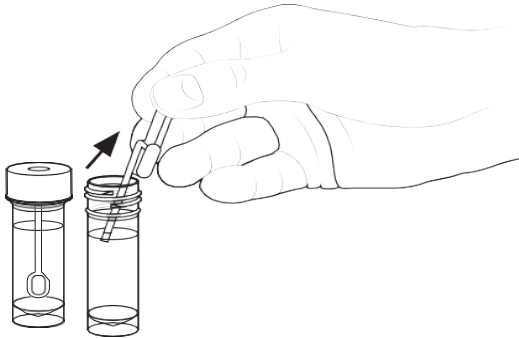
### c. Performing the test

9. Remove NEATstik® from the foil packaging and place on a level surface with the viewing window upwards.



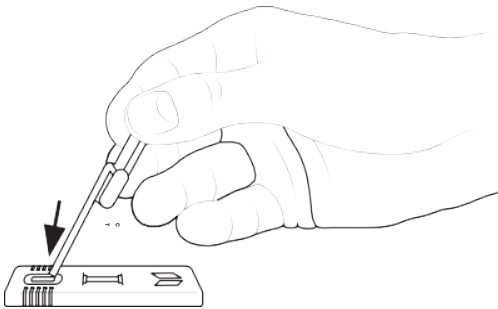
10. Remove the lid from the sputum dilution pot.

11. Use the dual bulb pipette to draw up a sample of the diluted sputum. Try to ensure solution only – no ‘lumps’ of sputum.



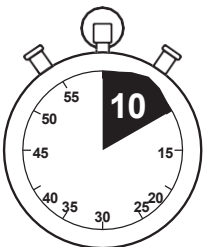
This image is for demonstration purposes. Wear gloves in practice.

12. Apply the sample to the oval shaped sample port on NEATstik®.



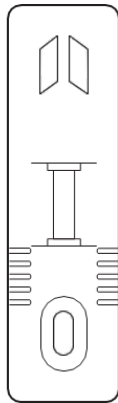
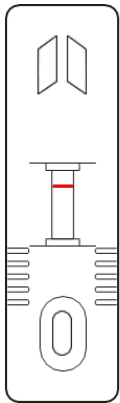
This image is for demonstration purposes. Wear gloves in practice.

13. Wait for 10 minutes (use a timer) before reading the result.



**d. Reading the result**

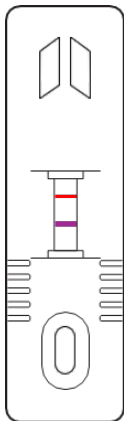
If the test has been performed successfully, the CONTROL (C) line will be visible as a red line (colour intensity may vary). If the CONTROL (C) line is not visible, the results are invalid and the test should be repeated with a new sample and a fresh test kit.



Valid Test (CONTROL line visible)

Invalid Test (CONTROL line not visible)

If the TEST (T) line is visible, this confirms the presence of active NE in the sputum sample.



If the TEST (T) line is not visible, active NE is not detectable in the sputum sample.

**14. Troubleshooting**

If the CONTROL (C) line does not appear, the test is invalid. Repeat with a new kit.

## 15. Results of the Assay

The NEATstik® test will provide a qualitative detection of active NE.









## 16. Limitations of the Procedure

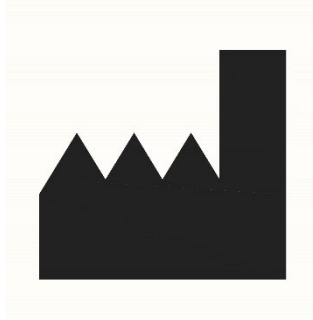
- For Research Use Only. Not for use in diagnostic procedures.
- The test is for single use only, do not reuse.
- The NEATstik® test is intended for use with sputum samples only.
- The performance of the NEATstik® test was validated using the procedures provided in this IFU only. Modification of these procedures may alter the performance of the test.

## 17. Quality Control

If the CONTROL (C) line is not visible after running the test, the results are invalid and the test should be repeated with a new sample and a fresh test kit.

## 18. Symbols

Symbol	Meaning
	Research Use Only
	Catalogue Number
	Lot Number
	Consult Instructions
	Manufactured By
	Do Not Reuse, Intended For Single Use
	Expiry Date
	Storage Temperature Limitations



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Orders: [orders@proaxis.com](mailto:orders@proaxis.com)

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