



AlerTox[®]

Polyphenol Additive

Additive for use with foods high in polyphenols, antioxidants or tannins. Suitable for use with AlerTox[®] Sticks and AlerTox[®] ELISA assays.

REF ASY3213

Contents

| | |
|--------------------------------------|---|
| 1. Intended Use..... | 3 |
| 2. Introduction | 3 |
| 3. Test Applications..... | 4 |
| 4. Kit Contents..... | 4 |
| 5. Other Materials Not Supplied..... | 4 |
| 6. Precautions | 4 |
| 7. Sample Handling | 4 |
| 8. Test Procedure | 4 |
| 9. Contact Information..... | 4 |
| 10. Change Index..... | 4 |



1. Intended Use

The AlerTox[®] Polyphenol Additive is intended for use by food testing and quality control laboratories analyzing products that contain polyphenols, tannins, or high levels of antioxidant compounds.

Examples of polyphenol-rich foods include:

- Dark chocolate and cocoa powder
- Tea and coffee
- Wine and fruit juices
- Purple corn and corn fiber
- Soy, berries and legumes, such as chickpeas and lentils
- Spices, herbs and botanical extracts
- Cosmetic products that contain interfering antioxidants, such as vitamins A, C, and E, carotenoids and similar compounds

The AlerTox Polyphenol Additive is intended for use by laboratories and food production facilities that:

- Are currently using AlerTox[®] Sticks or AlerTox[®] ELISA kits, which have been tested with the AlerTox Polyphenol Additive (refer to the relevant AlerTox Allergen Detection Kit instructions)
- and**
- Routinely test polyphenol-rich food products

Each kit includes a sufficient volume of Polyphenol Additive to support approximately 50 – 100 tests, improving the accuracy and confidence in allergen detection from otherwise problematic sample types.

2. Introduction

Polyphenols are naturally occurring compounds found in a wide variety of plant-based foods, including bark, leaves, seeds and fruits. They are responsible for many of the characteristic flavors, aromas and colors in products, such as dark chocolate, red wine, teas, berries, herbs and spices. While beneficial to human health due to their antioxidant properties, polyphenols pose a unique challenge in the food testing lab. These compounds can interfere with protein extraction, inhibit antibody binding and ultimately compromise the sensitivity and reliability of allergen detection assays.

This interference is not limited to food matrices. Cosmetic products containing high levels of antioxidant compounds—such as vitamins A, C, and E, as well as carotenes and carotenoids—can present similar challenges.

To address this issue, Hygiena[®] has developed the **AlerTox Polyphenol Additive**—a specialized reagent designed to improve allergen recovery during sample preparation from complex food matrices rich in polyphenols, tannins or other interfering compounds. It neutralizes the effects of polyphenols and related compounds, thereby enhancing the accuracy of allergen detection in complex samples. This additive is compatible with both **AlerTox Sticks** and **AlerTox ELISA** kits and is intended to be used in parallel with standard extraction protocols for samples known or suspected of containing high levels of polyphenols.



3. Test Applications

The AlerTox Polyphenol Additive is for use with foods high in polyphenols, antioxidants or tannins. This product is suitable for use with AlerTox Sticks and AlerTox ELISA assays.

This product is recommended for facilities that are:

- Already using AlerTox Sticks or AlerTox ELISA Kits
- and**
- Testing samples high in tannins, antioxidants, or polyphenols (e.g., cocoa powder, black tea, berry extracts)

For additional matrix validation information, contact Hygiena at www.hygiena.com/support.

4. Kit Contents

| Component | Quantity |
|-----------------------------|----------|
| AlerTox Polyphenol Additive | 100 g |
| Spoons | 150 each |

5. Other Materials Not Supplied

- Digital scale sensitive to 0.1 g (optional)

6. Precautions

- Components must be stored at 10 to 30 °C (50 to 86 °F).
- Do not use the Polyphenol Additive beyond the expiration date.

7. Sample Handling

All samples must be at 18 to 35 °C (64.4 to 95 °F) before use.

8. Test Procedure

This is a brief overview of using the AlerTox Polyphenol Additive with AlerTox Sticks Kits and most AlerTox ELISA Kits.

Important: For AlerTox ELISA Kits, see their kit instructions (Appendix A) for how to use the AlerTox Polyphenol Additive. The instructions slightly differ for some kits, especially if using the AlerTox ELISA Hazelnut and Pistachio Kits.

- 8.1** Add the AlerTox Polyphenol Additive to the sample tube. (Use the amount specified in the kit instructions.)
- 8.2** Add the sample to the sample tube. (Use the amount specified in the kit instructions.)
- 8.3** Mix vigorously to achieve complete homogenization of the mixture.
- 8.4** Continue testing, following your AlerTox kit instructions.

9. Contact Information

For more information, visit www.hygiena.com/contact. For technical support, visit www.hygiena.com/support.

10. Change Index

INS-ASY3213-001-REVA, April 2025
Initial kit instructions.



Hygiena

Camarillo, CA 93012

USA

techsupport@hygiena.com

Manufactured by

Hygiena Diagnóstica España S.L.

P. I. Parque Plata

Calle Cañada Real 31 – 35

41900, Camas (Sevilla), Spain

www.hygiena.com