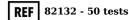
Fast Formaldehyde

Formaldehyde Adulteration in fish, food, meat, milk, water





24 months, storage at RT

Description

Formaldehyde is the simplest aldehyde. It is widely employed in industry (meat, fruits, fish, water) for wide range of applications, as a disinfectant and is a commonly utilized tissue fixative and embalming agent. Formaldehyde is naturally present in all tissues and body fluids. Recently, it has been shown that some cancer types exhibit elevated formaldehyde levels. Examples of foods known to contain naturally occuring formaldehyde.

Food Type/ Level (ppm-mg/kg)

Apple: 6.3-22.3 Banana: 16.3 Cauliflower: 26.9 Pear: 38.7-60.0

Mushroom (dried/raw): 100-406/6-54.4 Beef, pork, mutton and poultry meat: 2.5-20

Cod: 4.6-34 Fish ball: 6.8 Crustacean: 1-98

Key features

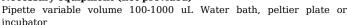
Fast Formaldehyde detection is an ideal kit for the presence of added formaldehyde in food (milk, fish, etc.). The only part that changes in the procedure is the preparation of the sample

Validated - High precise correlation with AOCS Official Method 897.01 Applications - Formaldehyde presence in biological samples, food, water, fish, meat, fruits

Kit contents

R - 2 x 12.5 mL.

Note: Use R with caution, wearing protective gloves. Necessary equipment (not provided)



Sample preparation and procedure for milk

- 1. Add 500 uL. of raw milk in a test tube
- 2. Add 500 uL. of reagent R in the test tube
- 3. Mix for 5 seconds
- $4. \ \mbox{Incubate}$ the content in a water bath or peltier plate for 3-5 minutes at $50\mbox{C}$
- 5. Read the formed colors

Sample preparation and procedure for fish

- 1. Cut 1 cm3 of raw fish and mince it and place it in a tube
- 2. Add 5 mL. of distilled water in the tube
- 3. Mix the suspension
- 4. Collect 500 uL. of suspension in a test tube
- 5. Add 500 uL. of reagent R in the test tube
- 6. Incubate the content in a water bath or peltier plate for 3-5 minutes $\,$
- 7. Read the formed colors

*Note: For other food sample preparations, contact MenidiMedica Biotech Greece

Interpretation (for milk)

- Fade pink = Pure food with no added formaldehyde
- Yellow = Adulterated food with formaldehyde (0.025%)
- Green = Adulterated food with formal dehyde (9%)

MSDS is available upon request.

References

- 1.Formalin Banning in Europe in 2016. The Molecular Pathology WG: European Union of Medical Specialists; 2016.
- 2.Ma J. Formaldehyde in Noodlefish in Food Safety Focus C.f.f. Safety, Editor. Centre for Food Safety, The Government of the Hong Kong Special Administrative Region: Hong Kong; 2010.
- Smoke T, Smoking I. IARC monographs on the evaluation of carcinogenic risks to humans. IARC: Lyon; 2004. p. 1-1452.
- 4. Songur A, Ozen OA, Sarsilmaz M. The toxic effects of formaldehyde on the nervous system. Rev Environ Contam Toxicol. 2010;203:105-18.
- 5.Uddin MM, et al. Analyzing time dynamic concentration of formaldehyde in fresh and formalin treated fish 'Labeo rohita'. In: International conference on chemical engineering 2014. Dhaka; 2014.
- 6.Wilbur S, Harris MO, McClure PR, Spoo W. Toxicological Profile for Formaldehyde. Atlanta, GA: US Department of Health and Human Services. Public Health Service, and the Agency for Toxic Substances and Disease Registry. 1999.
- 7.World Health Organization (WHO). Organic pollutants: formaldehyde. In: Theakston F (editor) Air quality guidelines for Europe, Chapter 5. Copenhagen, Denmark: WHO Regional Office for Europe; 2001, p. 1-25.





MenidiMedica Biotech Menidi Aetolias-Akarnanias 30016-Greece +30 2681088000, +30 6937115868 menidimedica@gmail.com www.menidimedica.g