

Product Manual

RapidChek® Histamine **Article number 10007183**

Intended use

RapidChek® Histamine is an enzymatic assay designed for the semi-quantitative analysis of histamine in fresh and frozen fish samples.

Minimum performance characteristics

Cut-off value: Raw fish: 20 ppm (20 mg/kg) histamine

Range of detection: 20 – 400 ppm (20 – 400 mg/kg) histamine

Number of tests: 50 strips (dipsticks)

Assay time: sample preparation – 2-3 min
development time – 5 min

About histamine

Histamine is naturally present in certain cells in low amounts. However, it is also a product of the decomposition of histidine caused by the growth of certain bacteria in seafood. It is predominantly found in fish from the Scombroidae family, such as mackerel and tuna, when improper handling or storage leads to decomposition. Consequently, poisoning caused by fish containing high levels of histamine is commonly referred to as "scombroid poisoning". Quality control measures designed to minimize the occurrence of scombrototoxic fish require the determination of histamine levels. Different regulations define thresholds of 50 ppm, 100 ppm, 200 ppm, and 400 ppm as evidence of definite decomposition.

Product information

About RapidChek® Histamine test kits

RapidChek® Histamine test kits are sensitive enzymatic assays designed for the quick monitoring and detection of histamine in fish samples. The test is based on the enzymatically catalyzed oxidation of histamine, coupled to the reduction of MTT to formazan. This reduction is visualized as a change of the test pad color, where the intensity of the purple color is proportional to the histamine concentration in the sample. RapidChek® Histamine test kits can be used to monitor the presence of histamine in frozen and fresh raw fish. They are easy and fast to use.

Storage information

RapidChek® Histamine test kits can be stored at room temperature (15-25°C (59-77°F)) or refrigerated (2-8°C (35-46°F)). Keep dry and out of direct sunlight. Do not freeze. Do not open the product until needed. Store the test strips only in their original packaging. Do not use the kit beyond the expiration date indicated on the package.

Content of the kit

RapidChek® Histamine test kits contain the following items:

- 1 tube containing 50 RapidChek® Histamine test strips
- 1 bottle of 50 mL of ready-to-use extraction buffer
- 1 package insert with a color card for result interpretation

Materials required but not included

Scale, blender or homogenizer, reaction tubes (2 mL), pipettor and tips or Pasteur pipettes, centrifuge.

Technical information

Sample specifications

Sampling: We recommend to sample the fish according to local regulations (when provided), or following standard procedures like that described in AOAC 937.07.

Detection: Since the assay is for screening purposes, a positive result may require confirmation or further testing. For more information regarding validation, please contact Romer Labs.

Technical support

Not sure if the test works with your specific samples? Let our longstanding experience work for you. Contact our technical sales representative in your region to learn more.

You can download this product manual as well as the certificates of analysis and performance corresponding to your kit from our website www.romerlabs.com.

Sample preparation

Before starting

Procedural guidelines:

- Make sure you have everything you need ready before starting the assay.
- Please follow the incubation time stated in the procedure. Incubation times other than those specified may return inaccurate results.

Precautions:

- The components in this test kit have been subjected to quality control tests as a standard batch unit. Do not mix or interchange components from different lots.
- Cover or cap all reagents when not in use and dispose of all materials and containers properly after use.

Homogenization:

We recommend processing the fish according to local regulations (when provided) or following standard procedures like those described in AOAC 937.07.

Fresh fish: Clean, scale, and eviscerate fish. Slice the appropriate number of fish according to regulations. Remove bones. Chop, grind or blend the samples until homogeneous. Keep ground material in a container with an airtight cover. Test as soon as possible and keep the test portions chilled if any delay may occur.

Sample extraction

1. Weigh **500 mg homogenized fish** and place it in a sample tube.
2. Add **1000 µl extraction buffer** and vortex for 10 seconds (or shake by hand for 1 minute).
3. Centrifuge the sample for **2 min** at full speed in a table-top centrifuge.

Assay procedure

4. Take one RapidChek® Histamine strip and dip it into the sample tube for **5 seconds**. Make sure to fully submerge the sample pad. Take the strip out and shake to remove any drop or debris.
5. Let the color develop for 5 minutes and read the result immediately.
6. Compare the color of the reaction pad on the strip with the color on the provided color card.

Interpretation of results

It is important to read the results **immediately after the 5-minute development step**. Longer incubation times can lead to false-positive results.

IMPORTANT: Some blanks produce color results equivalent to histamine values of approximately 20 ppm. For those, an operational **Cut-off of 25 ppm** is set.

Protocol at a glance

Sample extraction



Weigh **500 mg homogenized fish** and place it in a sample tube.



Add **1000 µl extraction buffer** and vortex for 10 seconds (or shake by hand for 1 minute).



Centrifuge the sample for **2 minutes** at full speed in a table-top centrifuge.

Assay procedure



Take one strip and dip it into the sample tube for **5 seconds**. Make sure to fully submerge the sample pad. Take the strip out and shake to remove any drop or debris.



Let the color develop for **5 minutes** and read the result immediately.



Compare the color of the reaction pad on the strip with the color on the provided color card.

General information

Contact information

You can find worldwide contact information and learn more about our complete line of products on our website.

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