



Application Note

RIDA® QUICK Gliadin (Art. No. R7003 / Art. No. R7004) in combination with the Cocktail (patented) (Art. No. R7006)

Information

- the sample extraction with Cocktail (patented) corresponds to the official Codex Alimentarius regulation / official AOAC-RI-method
- the Cocktail (patented) can be used for all kinds of food (raw materials as well as heat treated and processed food)
- it is recommended to work under a chemical hood, because the Cocktail (patented) contains β -mercaptoethanol
- the sample preparation takes approx. 2 h
- the limit of detection is approx. 4 mg/kg gliadin (8 mg/kg gluten) evaluated from validation data

Reagents required

- Cocktail (patented) (Art. No. R7006)
- ethanol solution (80 %) e.g. add 120 ml ethanol p.a. to 30 ml distilled water and shake well
- skim milk powder (food quality): for tannin and polyphenol containing food

General instructions for the sample preparation

homogenize well a sufficient amount (at least 5 g or 5 ml) of sample (grind it thoroughly to powder and mix well or mix well the solution respectively).

liquid food:

use 0.25 ml of the homogenized sample and add 2.5 ml of the Cocktail (patented), close the vial and mix well

solid food (including soy and quinoa containing food):

weigh 0.25 g of the homogenized sample and add 2.5 ml of the Cocktail (patented), close the vial and mix well

tannin and polyphenol containing food

(e.g. chocolate, coffee, cocoa, chestnut flour, millet, buckwheat or spices):

weigh 0.25 g of the homogenized sample, add 0.25 g of skimmed milk powder and add 2.5 ml of the Cocktail (patented), close the vial and mix well

meat and sausages:

in these matrices gliadin may be not distributed evenly, therefore, weigh 50 g sample and homogenize; weigh 0.25 g of the homogenized sample and add 2.5 ml of the Cocktail (patented), close the vial and mix well

Procedure

- incubate the sample solution for 40 min at 50 °C (122 °F) in the water bath
- let the sample cool down and then mix it with 7.5 ml 80 % ethanol
- close the vial and shake for 1 h up side down or by a rotator at room temperature (20 - 25 °C / 68 - 77 °F)
- centrifuge: 10 min / at least 2500 g / room temperature (20 - 25 °C / 68 - 77 °F)
- transfer the supernatant in a screw top vial
- proceed as described in section 8.3. resp. 8.4. of the product information for RIDA® QUICK Gliadin



Application Note

RIDA®QUICK Gliadin (Art. No. R7003 / Art. No. R7004) in combination with the RIDA® Extraction Solution (colorless) (Art. No. R7098)

Information

- the sample preparation with the RIDA® Extraction Solution (colorless) can be used for all food (raw materials as well as heat treated and accordingly processed food)
- the sample preparation is reduced to 35 min with the RIDA® Extraction Solution (colorless) compared to the Cocktail (patented)
- it is recommended to work under a chemical hood, because of β -mercaptoethanol in the RIDA® Extraction Solution (colorless)
- the limit of detection is approx. 4 mg/kg gliadin (8 mg/kg gluten) evaluated from validation data

Reagents required

- RIDA® Extraction Solution (colorless) (Art. No. R7098)
- 2-propanol solution (68 %): add 68 ml 2-propanol p.a. to 32 ml distilled water and shake well
- skim milk powder (food quality): for tannin and polyphenol containing food

General instructions for the sample preparation

homogenize well a sufficient amount (at least 5 g or 5 ml) of sample (grind it thoroughly to powder and mix well or mix well the solution respectively).

liquid food:

pipette 0.25 ml of the homogenized sample into a vial, add 2.5 ml of the RIDA® Extraction Solution (colorless), close the vial and mix well

solid food:

weigh 0.25 g of the homogenized sample, add 2.5 ml of the RIDA® Extraction Solution (colorless), close the vial and mix well

soy, millet, quinoa and buckwheat containing food as well as further tannin and polyphenol containing food (chocolate, coffee, cocoa, chestnut flour, spices):

weigh 0.25 g of the homogenized sample, add 0.25 g of skimmed milk powder and add 2.5 ml of the RIDA® Extraction Solution (colorless), close the vial and mix well

meat and sausages:

in these matrices gliadin may be not distributed evenly, therefore, homogenize approx. 50 g sample, then weigh 0.25 g of the homogenized sample, add 2.5 ml of the RIDA® Extraction Solution (colorless), close the vial and mix well

Procedure

- incubate the sample solution for 15 min at 60 °C (140 °F) in a water bath
- let the sample cool down and then mix well with 7.5 ml 68 % 2-propanol
- close the vial and incubate for 10 min in a water bath at 60 °C (140 °F)
- centrifuge: 10 min / at least 2500 g / room temperature (20 - 25 °C / 68 - 77 °F)
- put the supernatant in a screw top vial
- proceed as described in section 8.3. resp. 8.4. of the product information for RIDA®QUICK Gliadin