

## Food Allergens

### Veratox®

#### For Gliadin R5



#### Intended Use

Veratox for Gliadin R5 is used for the quantitative analysis of ingredients, clean-in-place (CIP) solutions and finished food products intended to be prolamins (gluten) free, for the presence of gliadins and prolamins found in wheat, barley and rye.

#### The Test

Veratox for Gliadin R5 (prolamins of wheat, barley and rye) is a sandwich enzyme-linked immunosorbent assay (S-ELISA). Gliadin is extracted from samples in one of two ways based on the nature of the sample. Extract is diluted in phosphate saline buffer and diluted samples are added to antibody-coated wells (capture antibody) where gliadin will bind to the antibody during an incubation period. Any unbound gliadin is washed away and a second antibody, which is enzyme labeled (detector antibody) is added. The detector antibody binds to the gliadin during another incubation period. Unbound enzyme-labeled antibody is washed away and a one-step substrate is added. Color develops as a result of the presence of bound-labeled antibody. A stopping reagent is added and the color of the solution is observed. Blue color indicates samples containing high levels of wheat gliadin, rye secalin or barley hordein while purple or red samples contains little or no prolamins of wheat, barley and rye. The optical densities of the controls form a standard curve, and the sample optical densities are plotted against the curve to calculate the exact concentration of gliadin in parts per million (ppm).

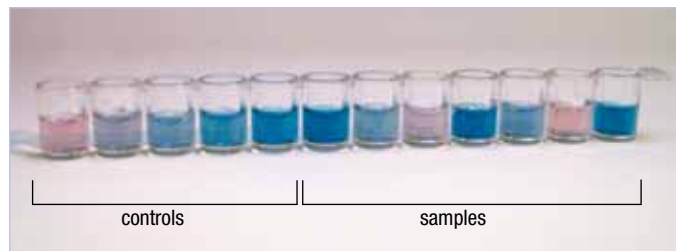
#### The Procedure

Samples must be extracted and diluted prior to testing.

1. Add 150  $\mu$ L controls and samples to transfer wells.
2. Transfer 100  $\mu$ L to the antibody wells. Incubate for 10 minutes.
3. Dump liquid from antibody wells.
4. Wash wells thoroughly with wash buffer. Tap out water on paper towel.
5. Transfer 100  $\mu$ L conjugate from reagent boat to antibody wells using 12-channel pipettor. Incubate for 10 minutes.
6. Repeat steps 3-4 by dumping out the liquid, thoroughly washing the wells, and tapping dry.
7. Transfer 100  $\mu$ L substrate from reagent boat to antibody wells using 12-channel pipettor. Incubate for 10 minutes.
8. Transfer 100  $\mu$ L Red Stop from reagent boat to antibody wells.
9. Read results in a microwell reader.

See package insert for complete instructions

#### Results



#### Product Specifications

Range of quantitation:	2.5 ppm – 40 ppm
Controls provided:	0, 2.5, 5, 10, 20 and 40 ppm gliadin
Testing time:	30 minutes
Tests per kit:	Up to 36

#### Materials Recommended But Not Provided

Available from Neogen\*

1. Allergen Extraction Kit
2. Graduated cylinder capable of measuring 125 mL
3. Scale capable of weighing 0.25 g  $\pm$  0.01 g
4. Microwell reader with a 650 nm filter
5. 50-200  $\mu$ L adjustable pipettor
6. 12-channel pipettor
7. Tips for adjustable and 12-channel pipettors
8. Timer
9. Microwell holder
10. Wash bottle
11. 3 reagent boats for use with 12-channel pipettor
12. Two 1 L bottles to prepare washing solution and sample extract dilution solution
13. 1.5 mL vial or 10 mL test tubes
14. Gliadin Renaturing Cocktail Solution

Not available from Neogen

1. Orbital rotator or shaker to hold 50 cc tubes for 1 g sample or shaker water bath with clamps adjusted to hold 125 mL extraction bottles for 2 g sample
2. Centrifuge (optional)
3. Oven or water bath at 50°C if analyzing heat-processed samples
4. Paper towels or equivalent absorbent material
5. Distilled or deionized water
6. Waterproof marker
7. Laboratory grade ethanol (190 proof)

#### Ordering Information

Prod.#	Product Description
8510	Veratox for Gliadin R5
8429	Allergen Extraction Kit - 20 samples
8515	Gliadin Renaturing Cocktail Solution - 100 mL
8515S	Gliadin Renaturing Cocktail Solution - 25 mL
8515B	Gliadin Renaturing Cocktail Solution - 500 mL