



AgraQuant[®]

Mycotoxin ELISA test kits

AgraQuant[®] mycotoxin test kits are rapid, quantitative enzyme-linked immunosorbent assays (ELISA) for analyzing mycotoxins in grains, nuts, cereals and other commodities, including animal feeds.

How the test works

AgraQuant[®] mycotoxin test kits are direct competitive enzyme-linked immunosorbent assays (ELISA).

A single sample extraction using a 70% methanol solution is applicable to seven of the ten available AgraQuant[®] mycotoxin kits. These kits are used to analyze total aflatoxin, aflatoxin B1, fumonisin, ochratoxin A, and zearalenone. The aflatoxin M1, deoxynivalenol, T-2 and T-2/HT-2 kits come with a slightly different extraction. Additionally, some kits require the dilution of the sample extract to mitigate matrix effects.

After the sample extract or calibrators are combined with the enzyme-conjugated toxin in the antibody-coated well, the competitive reaction takes 10 to 60 minutes (first incubation). Subsequent washing removes unbound reactants. Then, the addition of substrate begins a color reaction lasting 5 to 20 minutes (second incubation). The intensity of the resulting color is inversely proportional to the concentration of mycotoxin in the sample or standard. A stop solution is added to prevent further development of the color reaction, which enables reproducible measurements of the intensity using a microwell reader. Results obtained from the reader are interpretable using spreadsheets provided free of charge by Romer Labs.

Kit contents

Each kit comes complete with five to six standards, and either 48 or 96 antibody-coated microwells and color-coded dilution microwells, along with conjugate, substrate, and stop solution.



Features and Benefits

Streamlined testing

- **Efficient analysis:** Analyzes up to five mycotoxins from one extraction, streamlining testing by reducing complexity and time.
- **Simplified workflow:** Integrated workflow with fewer steps, no extra clean-up needed, leading to smoother lab operations.

Versatile and convenient

- **Broad compatibility:** Validated for various commodities, useful in diverse testing scenarios.
- **Flexible timing:** Allows a 30-minute reading window post-reaction, aiding batch processing and time management in labs.

Cost-effective and eco-friendly

- **Adaptable formats:** Available in 48 and 96-well formats with a breakaway design, catering to different testing needs.
- **Resource optimization:** Supports varying test volumes, thereby reducing waste and enhancing environmental responsibility.



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Carefully read the product manual before performing any test. The order of some steps as well as specific instructions may differ depending on the kit and application.

- 1** Add 200 μL conjugate into each dilution well.
- 2** Add 100 μL standards or samples to the conjugate.
- 3** Mix well. Transfer 100 μL of the mixture to antibody-coated wells. Incubate for 10 – 60 minutes.
- 4** Discard contents from the wells and wash wells with deionized water or buffer solution (5x).
- 5** Tap dry the wells on absorbent paper towel.
- 6** Add 100 μL substrate into each well. Incubate for 5 – 20 minutes.
- 7** Add 100 μL stop solution into each well.
- 8** Analyze results using an ELISA reader with a 450 nm filter; we recommend a 630 nm differential filter.

Ordering Information

Item	Description	Quantitation Range	Item No.
AgraQuant® Total Aflatoxin	96/48 wells	4 – 40 ppb	10002098/10002099
AgraQuant® Total Aflatoxin	96/48 wells	1 – 20 ppb	10002100/10002101
AgraQuant® Aflatoxin M1 Sensitive	96/48 wells	25 – 500 ppt	10002116/10002117
AgraQuant® Aflatoxin M1 High Sensitivity	96/48 wells	5 – 100 ppt	10002120/10002121
AgraQuant® Aflatoxin B1	96/48 wells	2 – 50 ppb	10002122/10002123
AgraQuant® Deoxynivalenol Plus	96/48 wells	0.25 – 5.0 ppm	10006638/10006639
AgraQuant® Fumonisin	96/48 wells	0.25 – 5.0 ppm	10002104/10002105
AgraQuant® Ochratoxin	96/48 wells	2 – 40 ppb	10002102/10002103
AgraQuant® T-2 Toxin	96/48 wells	20 – 500 ppb	10002113/10002114
AgraQuant® T-2/HT-2	96/48 wells	24 – 500 ppb	10006953/1006954
AgraQuant® Zearalenone Plus	96/48 wells	25 – 1000 ppb	10002111/10002112