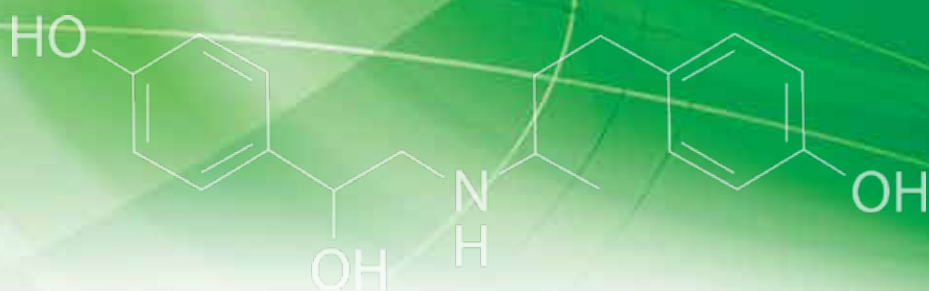




RAPID RACTOPAMINE TESTING SOLUTIONS



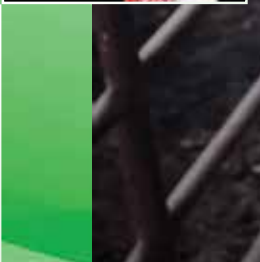
Lateral flow tests

- Cattle urine
- Swine urine
- Swine and turkey feed

Microwell ELISA

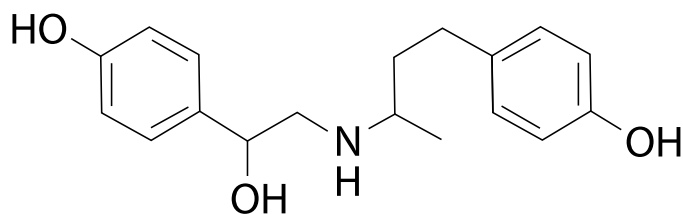
- Swine urine and tissue





RACTOPAMINE

Ractopamine is a beta-agonist drug added to feed to promote the rapid growth of lean muscle in animals raised for meat. The drug has no approved use in humans. While many countries allow the use of ractopamine within specified limits, regulatory agencies in many other countries have banned use of the drug, including those in the European Union, Russia, Taiwan and mainland China.



To ensure compliance with export regulations, animal urine and tissue samples can be easily screened for the presence of ractopamine. In addition, feed manufacturers can use simple screening tests to verify the effectiveness of their cleanup procedures when switching production from ractopamine-medicated feed to feed intended to be ractopamine-free.

Ractopamine, developed by Elanco Animal Health, is commonly marketed under the trade names Paylean for swine and Optaflexx for cattle.

*Ractopamine has
no approved use
in humans*

About Neogen

Neogen Corporation develops and markets products dedicated to food and animal safety. The company's Food Safety Division markets dehydrated culture media, and diagnostic test kits to detect foodborne bacteria, natural toxins, food allergens, drug residues, plant diseases and sanitation concerns. Neogen's Animal Safety Division is a leader in the development of animal genomics along with the manufacturing and distribution of a variety of animal healthcare products, including diagnostics, pharmaceuticals, veterinary instruments, wound care and disinfectants.



Ractopamine Lateral Flow Device (LFD) Screening Tests

Intended use

Ractopamine Lateral Flow Device (LFD) tests are intended to screen cattle and swine urine samples, and swine and turkey feed samples for the presence of ractopamine. The tests are qualitative one-step competitive inhibition immunoassays, which easily detect the presence of ractopamine at set concentrations by utilising highly specific reactions between antibodies and ractopamine.

Test principle

If ractopamine is present in the urine sample, it competes with the immobilised ractopamine conjugate in the test area for the antibody binding sites on the colloidal gold labeled antibody complex. If a sufficient amount of ractopamine analyte is present, it will fill all of the available binding sites, thus preventing attachment of the labeled antibody to the ractopamine conjugate. If an obvious coloured line is not visible in the test line region, ractopamine is likely present at levels of concern.

LFD assay procedure

1. Allow test devices and samples to reach room temperature.
2. Remove a test device from the sealed foil pouch. Using the blue MiniPet (available in Starter Kit), apply 100 μ L of sample to the test device sample port. Use a new pipette tip for each sample to avoid cross-contamination.
3. Allow the test to develop for 10 minutes and read the result.

Available LFD screening tests

- **Ractopamine LFD Screening Test for Swine Urine**
Cat. No.: RT-LFD-25-SU-IDS – Screens at 2.5 ppb
Kit includes: 25 lateral flow devices and 25 pipette tips
- **Ractopamine LFD Screening Test for Cattle Urine**
Cat. No.: RT-LFD-25-CU-IDS – Screens at 1 ppb
Kit includes: 25 lateral flow devices and 25 pipette tips
- **Ractopamine LFD Screening Test for Swine and Turkey Feed**
Cat. No.: RT-LFD-25-F-IDS – Screens at 0.5 or 4 ppm
Kit includes: Complete Ractopamine LFD kit for 25 tests.
Includes 25 LFD devices, 26 50 mL conical tubes, 25 16 x 79 polypropylene tubes and caps, 50 pipette tips, 25 2 mL capped microtubes, 25 medium pour boats, and 1 mL transfer pipette.

Starter kits available (elements can be purchased separately)

- **For Urine LFD tests**
Cat. No.: RT-STK-LFD-U-IDS
 1. 100 μ L MiniPet pipettor
 2. Timer single channel
- **For Feed LFD test**
Cat. No.: RT-STK-LFD-F-IDS
 1. 50 μ L MiniPet pipettor
 2. Timer single channel
 3. Foam rack for 50 mL centrifuge tubes
 4. Foam rack for 2 mL microtubes
 5. Plastic spatula with handle
 6. Red scoop – use large (tablespoon) end only
 7. Squirt bottle (for diluting sample to 4 ppm cutoff)

Ractopamine Microwell ELISA for Tissue and Urine Testing

Cat. No. RT-96-TU-IDS

Intended use

For the qualitative determination of trace quantities of ractopamine in swine tissue and urine.

Test principle

Ractopamine ELISA is a solid phase immunoassay, which is performed in microwells coated with a specific antibody to ractopamine. A control or sample is added to the wells followed by a ractopamine enzyme conjugate. During an incubation, the enzyme conjugate competes with the any ractopamine in the sample for binding sites on the antibody-coated well. After washing to remove any unbound material, substrate is added. Stop solution is then added to stop the reaction.

Colour intensity is inversely proportional to the amount of ractopamine present in the sample. Results in parts per billion (ppb) are obtained by reading the absorbance of the samples wells with a microplate reader, and comparing those results to absorbance values obtained from control wells.

Materials provided

All reagents and antibody-coated microwells necessary to run a minimum of 44 samples, if all controls and samples are run in duplicate as recommended.

Controls provided

- **Swine Urine**
Negative control: 0 ppb
Control: 0.4 ppb
Cutoff control: 1 ppb
Positive control: 5 ppb
- **Swine Liver**
Negative control: 0 ppb
Cutoff control: 0.3 ppb
Positive control: 0.5 ppb
High positive control: 1.0 ppb

Additional controls available

- **Swine Tissue** (Cat. No. RT-MC-4-IDS)
Negative control: 0 ppb
Cutoff control: 0.25 ppb
Positive control: 0.5 ppb
High positive control: 1.0 ppb





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