RACTOPAMINE ELISA (5061RACT)

General

Ractopamine belongs to the β-adrenergic agonists which act as nutrient repartitioning agents in livestock by diverting nutrients from fat deposition to the production of muscle tissues. Ractopamine is a growth promoter, its use is forbidden in EU countries. The US Food and Drug Administration (FDA) approved ractopamine for use in finisher phase swine feeds. Ractopamine is not allowed in the European Union and therefore no Maximum Residue Limit (MRL) is set. Nevertheless, a so-called recommended concentration (RC) has been published by the European Union Reference Laboratories of 1 ppb in urine.

The **Ractopamine ELISA** is a competitive enzyme immunoassay based on antibodies directed against ractopamine.

Kit characteristics

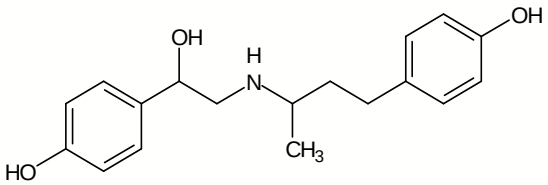
***Microtiter plate*:**
96 Wells
12 x 8 Breakapart

***Antibody cross-reactivity*:**

Ractopamine	100%
Clenbuterol	<0.1%
Fenoterol	<0.1%
Ritodrine	<0.1%
Salbutamol	<0.1%
Salmeterol	<0.1%
Isoxsuprine	<0.1%

Conjugate:
Ractopamine-HRP stabilized

Standard range (ready-to-use):
0, 0.063, 0.125, 0.25, 0.5, 1 and 2 ng/ml



Chemical structure of ractopamine

Assay characteristics

Matrices	***LOD (ppb)***
Milk	0.04
Tissue	0.1
Liver	0.4
Feed	2.0
Serum	0.4
Urine	1.0

The Limit of detection (LOD) is calculated as: Xn+3SD and is determined under optimal conditions.

Sample preparation
For milk, tissue, liver, feed, serum and urine fast and efficient extraction methods are included in the kit manual.

Procedure
Conjugate and sample/standard are pipetted into the pre-coated wells of the microtiter plate and incubated for 30 minutes at 20°C - 25°C. After a washing procedure ready-to-use substrate is added and incubated for 30 minutes at 20°C - 25°C. The reaction is stopped and the absorbance is read in a spectrophotometer at 450 nm.
EuroProxima's user-friendly software converts the measured optical density into the concentration of the metabolite in the starting material.