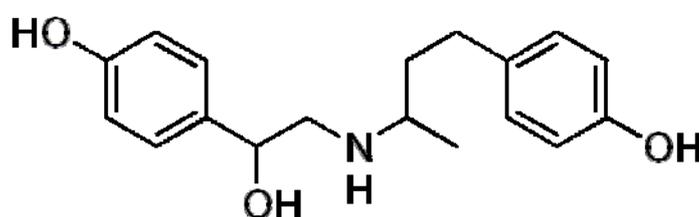


Ractopamine



Ractopamine

Ractopamine is a drug used as a feed additive to promote leanness in animals raised for their meat. Pharmacologically, it is a beta-adrenoceptor agonist, it has the opposite effect of a β -blocker. It is the active ingredient in several feed additive products for swine and cattle, for growth promotion. Ractopamine is banned in the European Union, mainland China and Russia.

Ractopamine is not for human consumption, the maximum residue limit (MRL) for meat from animals reared on Ractopamine are generally 10-50 ppb and the recommended range for Ractopamine in pig feed is 5-20ppb and 10-30ppb in cattle feed.

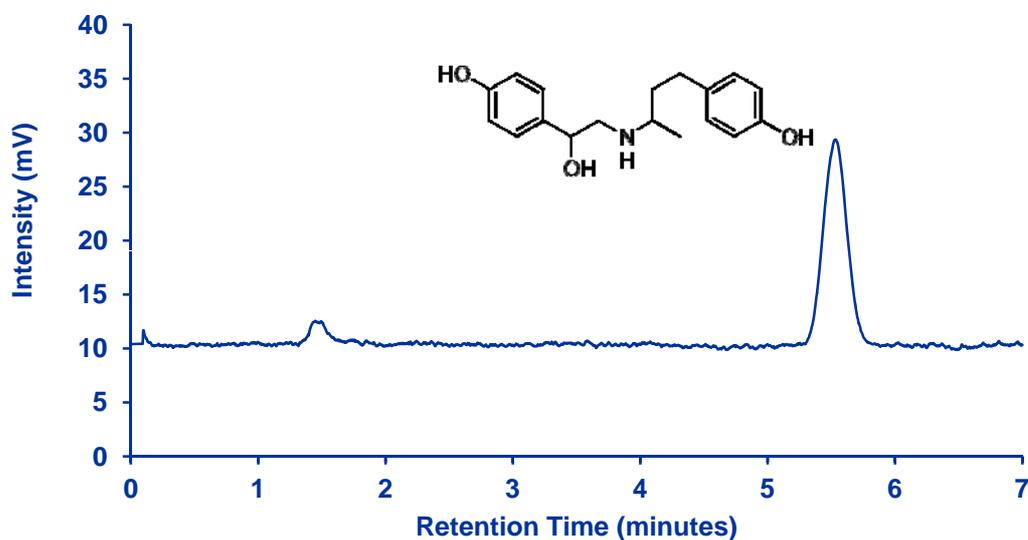
There exists a USP monograph method for Ractopamine using ion-pairing in a gradient method with a 55 minute cycle time.

Ractopamine

SeQuant® ZIC®-HILIC

Chromatographic Conditions

Column:	SeQuant® ZIC®-cHILIC (3 µm, 100 Å) PEEK 150 × 4.6 mm	1.50661.0001
Injection:	5 µL	
Detection:	Hitachi Chromaster-5440 Fluorescence Detector λ _{ex} =226; λ _{em} =306 nm	
Cell:	13 µL	
Flow Rate:	1.0 mL/min	
Mobile Phase:	Buffer: Dissolve 1.361 g of monopotassium phosphate in 1000 ml water (10mM). Mix Acetonitrile and Buffer 80:20 (v/v)	
Temperature:	35 °C	
Diluent	Mobile phase	
Sample:	50 ppb Ractopamine in mobile phase	
Pressure Drop:	63 Bar (913.5 psi)	



Chromatographic Data

No.	Compound	Retention Time (min)	Retention factor K ^o	Asymmetry
1	t ₀	1.4	-	-
2	Ractopamine	5.5	2.9	1.0