

# Salbutamate<sup>®</sup> 10%

## safe quality meat

## Mode of Action of R-Salbutamol

### Introduction

The active ingredient R-salbutamol sulphate is classed as a beta-agonist, also known as a beta2 ( $\beta_2$ ) adrenergic agonist. Beta-agonists are also referred to as metabolic modifiers or repartitioning agents.

R-Salbutamol is the pure isomer of salbutamol, which is a 1:1 ratio of the R- and S-isomers.

### Why R-Salbutamol?

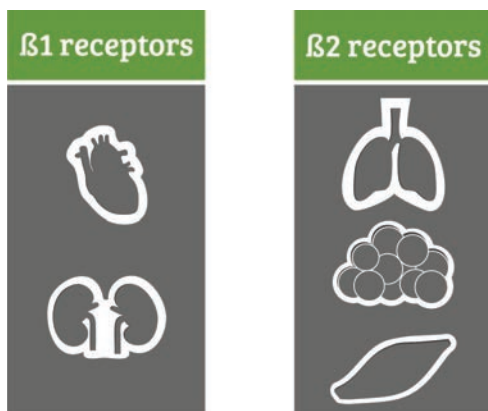
Salbutamol binds to both  $\beta_1$  and  $\beta_2$  receptors on body cells. S-salbutamol has a higher affinity for the  $\beta_1$  receptor whereas R-salbutamol is selective for the  $\beta_2$  receptor.

### Implication of Receptor Affinity

$\beta_1$  receptors are found mainly on the heart muscle and kidneys. Stimulation of the  $\beta_1$  receptors leads to increased heart rate and possible tachycardia.

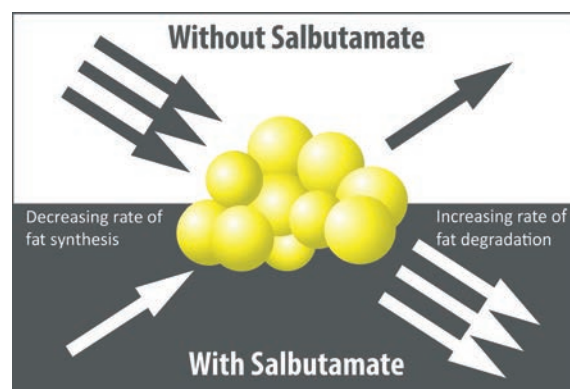
$\beta_2$  receptors are found on the lungs, muscle, and most importantly, adipose tissue.

The absence of the S-isomer in Salbutamate<sup>®</sup> 10% reduces the negative effect of heart palpitations.



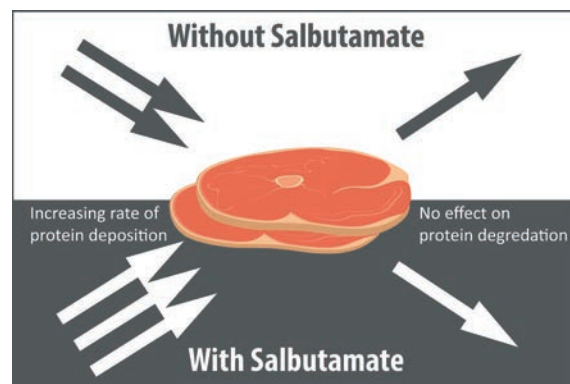
### Effect on Fat Metabolism

The binding of R-salbutamol to  $\beta_2$  receptors on adipose tissue stimulate fat break down (lypolsis). This in turn increases the amount of energy available for muscle growth (protein anabolism).



### Effect on Muscle Metabolism

R-salbutamol also binds to  $\beta_2$  receptors on the muscle, increasing protein deposition, leading to improved carcass dressing percentage.



For more information go to: [www.salbutamate.com](http://www.salbutamate.com)

Animate Animal Health (Pty) Ltd; Co.Reg.No. 1973/002312/07; 43 Hornbill Road, Rooihuiskraal, Centurion; Tel: +27 (0)12 661 3485; E-mail: [info@animate.co.za](mailto:info@animate.co.za); [www.animate.co.za](http://www.animate.co.za); Salbutamate and the "dotted-S" are registered trademarks of Animate Animal Health (Pty) Ltd. Salbutamate<sup>®</sup> 10% Reg. no. G4084 (Act 36 of 1947); References available on request.



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