

## Product Data Sheet

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Product Name: Ro 25-1553 acetate

Cat. No.: GC81567

### Chemical Properties

Cas. No.

Formula  $C_{160}H_{258}N_{46}O_{46} \cdot xC_2H_4O_2$  M.Wt 3562.04

Solubility DMSO: 100 mg/mL (Need ultrasonic) Storage Sealed storage, away from moisture

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Ac-His-Ser-Asp-Ala-Val-Phe-Thr-Glu-  
Asn-Tyr-Thr-Lys-Leu-Arg-Lys-Gln-{Nle}-  
Ala-Ala-Lys-Lys-Tyr-Leu-Asn-Asp-Leu-  
Lys-Lys-Gly-Gly-Thr-NH<sub>2</sub> (Lactam  
bridge:Lys21-Asp25) (acetate salt)

### Background

Ro 25-1553 acetate is a selective VIP 2 receptor ( VPAC 2 receptor ) agonist. Ro 25-1553 acetate exhibits bronchodilatory effects on tracheal smooth muscle contractions induced by nerve stimulation or Carbachol. Ro 25-1553 acetate produces a superimposed effect when combined with Formoterol

**Caution: Product has not been fully validated for medical applications. For research use only.**

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and Salmeterol. Ro 25-1553 acetate can be used for the study of bronchoconstriction [1].

In Vitro, Ro 25-1553 ( $1 \times 10^{-11}$  to  $1 \times 10^{-6}$  mol l<sup>-1</sup>) acetate potently induces complete, concentration-dependent relaxation of isolated guinea pig tracheal smooth muscle strips pre-contracted with Carbachol; pD<sub>2</sub> value is 8.57 when the pre-contraction concentration of Carbachol is 0.1 µmol l<sup>-1</sup>, and 7.69 when the pre-contraction concentration of Carbachol is 1.0 µmol l<sup>-1</sup> [1]. Ro 25-1553 ( $1 \times 10^{-11}$  to  $1 \times 10^{-6}$  mol l<sup>-1</sup>) acetate exerts an additive effect with Formoterol to relax isolated guinea pig tracheal smooth muscle strips pre-contracted by 0.1 µmol l<sup>-1</sup> Carbachol [1]. Ro 25-1553 ( $1 \times 10^{-10}$  to  $1 \times 10^{-4}$  mol l<sup>-1</sup>) acetate potently and completely inhibits vagus nerve-induced contractions in isolated guinea pig tracheal preparations; the pD<sub>2</sub> value is 8.31 when administered extraluminally and 6.32 when administered intraluminally [1].

### References:

[1]. Källström BL, et al. Bronchodilating properties of the VIP receptor agonist Ro 25-1553 compared to those of formoterol on the guinea-pig isolated trachea. Eur J Pharmacol. 2001;430(2-3):335-340.

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