

Salmeterol (xinafoate)

Catalog No: tcsc1527



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg



Specifications

CAS No:

94749-08-3

Formula:

$C_{36}H_{45}NO_7$

Pathway:

GPCR/G Protein

Target:

Adrenergic Receptor

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 50 mg/mL (82.82 mM)

Alternative Names:

GR 33343X xinafoate

Observed Molecular Weight:

603.75

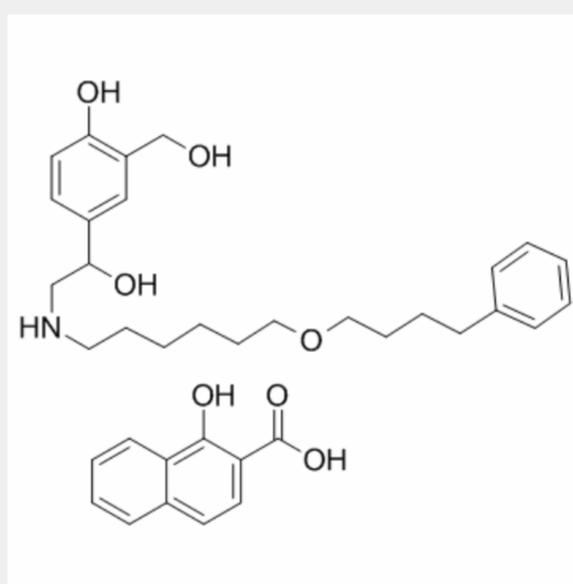
Product Description

Salmeterol xinafoate is a long-acting beta-2 adrenergic receptor (β_2 AR) agonist, with K_i of 1.5 nM for WT β_2 AR, and used for asthma treatment.

IC50 & Target: K_i : 1.5 nM (WT β_2 AR)^[2]

In Vitro: Salmeterol significantly inhibits production of pro-inflammatory mediators by RAW264.7 and THP-1 cells. Salmeterol downregulates PgLPS-mediated phosphorylation of the ERK1/2 and JNK but not p38 MAP kinases (MAP-K). Salmeterol also attenuates the activation of NF- κ B via inhibition of nuclear translocation of p65-NF κ B, the transcriptional activity of NF- κ B and I κ B α phosphorylation^[1]. Salmeterol shows very high selectivity for the WT β_2 AR (β_1 K_i / β_2 K_i ratio of approximately 1500) with K_i of 1.5 ± 0.4 nM^[2]. Salmeterol prevents phosphorylation levels of IRS-1^{Ser307} induced by tumor necrosis factor- α . Salmeterol alone prevents cell death in retinal Müller cells (p[3]. Salmeterol (100 μ M) causes apoptosis of DCs, and can not affect the differentiation and maturation of DCs at 10 μ M. Salmeterol (10 μ M) decreases the mRNA and protein levels of pro-inflammatory cytokines in LPS-activated DCs and inhibits MAPK and NF- κ B activation^[4].

In Vivo: The OVA/LPS groups with salmeterol result in a significant decrease in the enhanced AHR in allergic mice in a dose-dependent manner. Salmeterol contends with asthma via regulating the inflammation of the airway of the mice^[4].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!