

PRODUCT INFORMATION

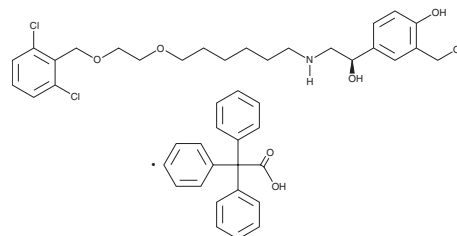


Vilanterol (triphenylacetate)

Item No. 39536

CAS Registry No.: 503070-58-4
Formal Name: α 1R-[[[6-[2-[(2,6-dichlorophenyl)methoxy]ethoxy]hexyl]amino)methyl]-4-hydroxy-1,3-benzenedimethanol, α,α -diphenylbenzeneacetic acid, monotriphenylacetate

Synonym: GW 642444M
MF: $C_{24}H_{33}Cl_2NO_5 \cdot C_{20}H_{16}O_2$
FW: 774.8
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Vilanterol (triphenylacetate) is supplied as a solid. A stock solution may be made by dissolving the vilanterol (triphenylacetate) in the solvent of choice, which should be purged with an inert gas. Vilanterol (triphenylacetate) is soluble in methanol.

Description

Vilanterol is a long-acting agonist of the β_2 -adrenergic receptor (β_2 -AR).¹ It selectively induces cAMP accumulation in CHO cells expressing the β_2 -AR over the β_1 - and β_3 -ARs (EC_{50} s = 0.4, 398, and 794 nM for the human receptors, respectively). Vilanterol inhibits contractions induced by electrical stimulation in isolated superfused guinea pig trachea strips. It inhibits bronchospasms induced by histamine (Item No. 33828) in guinea pigs when administered *via* nebulization (EC_{50} = 30 μM). Formulations containing vilanterol, in combination with fluticasone, have been used in the treatment of chronic obstructive pulmonary disease (COPD) and asthma.

Reference

1. Procopiou, P.A., Barrett, V.J., Bevan, N.J., *et al.* Synthesis and structure-activity relationships of long-acting beta2 adrenergic receptor agonists incorporating metabolic inactivation: An antedrug approach. *J. Med. Chem.* **53**(11), 4522-4530 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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