

# GSK256066

Catalog No: tcsc0349



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

801312-28-7

**Formula:**

$C_{27}H_{26}N_4O_5S$

**Pathway:**

Metabolic Enzyme/Protease

**Target:**

Phosphodiesterase (PDE)

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq$  5.2 mg/mL (10.03 mM)

**Observed Molecular Weight:**

518.58

## Product Description

GSK256066 is a selective PDE4B(equal affinity to isoforms A-D) inhibitor with IC50 of 3.2 pM, >380,000-fold selectivity versus

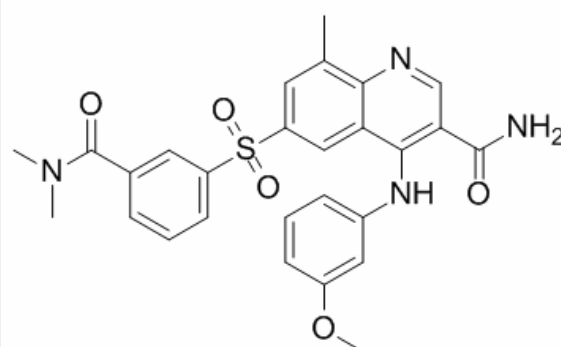
PDE1/2/3/5/6 and >2500-fold selectivity against PDE4B versus PDE7.

IC50 value: 3.2 pM [1]

Target: PDE4B

in vitro: GSK256066 is a slow and tight binding inhibitor of PDE4B with apparent IC50 of 3.2 pM. GSK256066 is an extremely potent inhibitor of LPS-stimulated TNF $\alpha$  production in PBMCs with pIC50 of 11.0 and IC50 of 10 pM and human whole-blood cultures with pIC50 of 9.90 and IC50 of 126 pM. GSK256066 is highly selective for PDE4 (>3.8  $\times$  10<sup>5</sup>-fold versus PDE1, PDE2, PDE3, PDE5, and PDE6 and >2.5  $\times$  10<sup>3</sup>-fold against PDE7). GSK256066 inhibits PDE4 isoforms A-D with equal affinity [1].

in vivo: GSK256066 inhibits the LPS-induced pulmonary neutrophilia with an ED50 of 1.1  $\mu$ g/kg, achieving maximal inhibition of 72% at 30  $\mu$ g/kg when given in the aqueous suspension. GSK256066 inhibits the LPS-induced pulmonary neutrophilia with ED50 of 2.9  $\mu$ g/kg, achieving maximal inhibition of 62% when given in the dry powder formulation. GSK256066 shows a moderate plasma clearance of 39 ml/min/kg, a moderate volume of distribution of 0.8 L/kg, and a relatively short half-life of 1.1 hour in the male CD rat [1]. GSK256066 sustains at a high lung concentration of 2.6  $\mu$ g/g after intra-tracheal administration as an aqueous suspension at a dose of 30  $\mu$ g/kg in rats [2]. GSK256066 (10  $\mu$ g/kg) is administered intratracheally at different times (2, 6, 12, 18, 24, and 36 hours) before LPS administration, inhibiting LPS-Induced Pulmonary Neutrophilia in rat lipopolysaccharide (LPS)-induced models of acute pulmonary inflammation. GSK256066 (0.3–100  $\mu$ g/kg) inhibits LPS-induced increases in exhaled nitric oxide with ED50 of 35  $\mu$ g/kg in rat. GSK256066 (10  $\mu$ g/kg) is administered half a hour before OVA administration in rat, inhibiting OVA-induced pulmonary eosinophilia with ED50 of 0.4  $\mu$ g/kg. GSK256066 administered intratracheally as a dry powder blended in respiratory-grade lactose at doses of 3 to 100  $\mu$ g/kg 2 hours before inhaled LPS challenge in ferrets, inhibiting LPS-induced pulmonary neutrophilia with ED50 of 18  $\mu$ g/kg without inducing emetic episodes [3].



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