

Zardaverine

Catalog No: tcsc1011



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

101975-10-4

Formula:

$C_{12}H_{10}F_2N_2O_3$

Pathway:

Metabolic Enzyme/Protease

Target:

Phosphodiesterase (PDE)

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 28 mg/mL (104.39 mM)

Observed Molecular Weight:

268.22

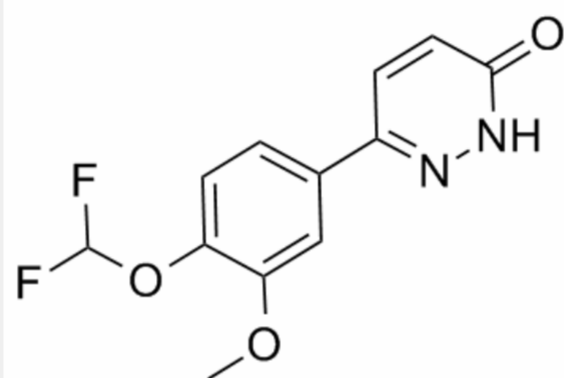
Product Description

Zardaverine is a newly developed dual-selective PDE3/4 inhibitor with IC₅₀ values of 0.5 μ M and 0.8 μ M respectively.

IC₅₀ value: 0.5 μ M (PDE3); 0.8 μ M (PDE4)

Target: PDE3; PDE4

Zardaverine inhibited the cyclic GMP-inhibitable PDE III from human platelets and the rolipram-inhibitable PDE IV from canine trachea and human polymorphonuclear (PMN) cells with IC₅₀-values of 0.58, 0.79 and 0.17 μ M, respectively. The pyridazinone derivative affected the calmodulin-stimulated PDE I, the cyclic GMP-stimulated PDE II and the cyclic GMP-specific PDE V only marginally at concentrations up to 100 μ M. Zardaverine inhibits the ADP-induced aggregation of human platelets with an IC₅₀ of 1.6 μ M. This inhibition was synergistically increased by activators of adenylate cyclase such as PGE1 and forskolin. In human PMN cells, Zardaverine inhibited the zymosan-induced superoxide anion generation with an IC₅₀ of 0.40 μ M. Again, this effect was increased by activators of adenylate cyclase. Zardaverine acted in synergy with the adenylate cyclase activators prostaglandin E2 and CG 4203, a prostacyclin analog, and super-additive effects of combinations were observed. Zardaverine and dexamethasone prevent bronchial eosinophilia and neutrophilia with similar dosage of 30 microM/kg orally, suggesting that this PDE III/IV inhibitor may be useful for both, bronchorelaxation and reduction of inflammation in asthma therapy.



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