
Product Data Sheet

Product Name: Stepronin

Cat. No.: GC68477

Chemical Properties

Cas. No. 72324-18-6

Formula $C_{10}H_{11}NO_4S_2$

M.Wt 273.33

Solubility DMSO : ≥ 250 mg/mL (914.65 mM)

Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

Background

Stepronin (Prostenoglycine) is an orally active expectorant (inhalation administration is preferable to oral administration). Stepronin inhibits airway secretion in vitro by reducing Cl^{-} secretion from epithelial cells and mucus glycoprotein secretion from submucosal glands^[1].

Stepronin ($0.1-100 \mu M$; 20 min) induces significant reductions in ISOP(Isoproterenol)-evoked SCC (short circuit current) value in a dose-dependent manner in canine tracheal epithelium^[1].

Stepronin ($10-100 \mu M$; 20 min) significantly inhibits the basal secretion and ISOP-evoked PD (potential difference) value in a dose-dependent manner in canine tracheal epithelium^[1].

Stepronin ($100 \mu M$; 20 min) significantly inhibits ISOP-induced [3H]-glycoconjugate secretion in submucosal glands^[1].

Cell Viability Assay^[1]

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

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Cell Line: Canine tracheal epithelium (from adult and 10 to 25 kg-weight mongrel dogs of both sexes)

Concentration: 0.1-100 μ M; 10-100 μ M

Incubation Time: 20 min (pre-treat)

Result: Significantly inhibited ISOP-induced SCC and PD values, as well as basal secretion.

Cell Viability Assay^[1]

Cell Line: Submucosal glands (from adult and 10 to 25 kg-weight mongrel dogs of both sexes)

Concentration: 100 μ M

Incubation Time: 20 min (pre-treat)

Result: Significantly inhibited ISOP- induced [³H]-glycoconjugate secretion.

[1]. Yamada K, et al. An expectorant, stepronin, reduces airway secretion in vitro. Respiration. 1994;61(1):42-7.

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