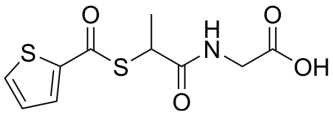
Stepronin

Cat. No.:	HY-A0234
CAS No.:	72324-18-6
Molecular Formula:	$C_{10}H_{11}NO_4S_2$
Molecular Weight:	273.33
Target:	Others
Pathway:	Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 250 mg/mL (914.65 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6586 mL	18.2929 mL	36.5858 mL
5 mM	0.7317 mL	3.6586 mL	7.3172 mL
10 mM	0.3659 mL	1.8293 mL	3.6586 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

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].

In Vitro

Stepronin (0.1-100 μM; 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 μM; 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 μM; 20 min) significantly inhibits ISOP-induced [^{3}H]-glycoconjugate secretion in submucosal glands[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

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

	sexes)
Concentration:	0.1-100 μM; 10-100 μM
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 μM
Incubation Time:	20 min (pre-treat)
Result:	Significantly inhibited ISOP- induced [^{3}H]-glycoconjugate secretion.

REFERENCES

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

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