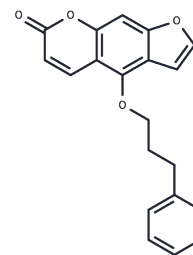


BER-5

Chemical Properties

CAS No. : 724709-67-5
 Formula: C₂₀H₁₆O₄
 Molecular Weight: 320.34
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	BER-5 is a potent MrgX2 antagonist, demonstrating broad-spectrum antagonistic activity against various MrgX2 agonists. It can inhibit Substance P(SP)-induced degranulation in LAD2 cells and alleviate SP-induced allergic reactions in mice. BER-5 is useful for researching mechanisms related to allergic reactions.
Targets(IC50)	Calcium Channel, Interleukin, MRGPR
In vitro	BER-5 (12.5-50 μ M) specifically inhibits the degranulation reaction in LAD2 cells induced by SP by suppressing the release of β -hexosaminidase (for 30 min), histamine (for 2 h), and IL-8 (for 6 h). BER-5 at a concentration of 0-100 μ M over 30 min can inhibit SP-induced release of β -hexosaminidase in LAD2 cells with an IC ₅₀ of 20.64 μ M, demonstrating stronger efficacy compared to BergaptoI (BER) (IC ₅₀ = 46.79 μ M) and Imperatorin (IMP) (IC ₅₀ = 99.73 μ M). Additionally, BER-5 at 50 μ M slightly increases the half-maximal effective concentration (EC ₅₀) of SP in LAD2 cells while significantly reducing its maximum effect (E _{max}). Furthermore, BER-5 (12.5-50 μ M) inhibits degranulation responses in LAD2 cells induced by the compounds C48/80, (R)-ZINC-3573, Rocuronium Bromide, and Ciprofloxacin, indicating its broad-spectrum antagonistic activity against multiple MrgX2 agonists. Lastly, BER-5 (12.5-50 μ M, 30 min) inhibits SP-induced Ca ²⁺ mobilization in MrgX2-HEK293 cells in a concentration-dependent manner.
In vivo	The compound BER-5, administered as a single intragastric dose ranging from 6.25 to 25 mg/kg, can alleviate allergic reactions induced by SP in adult mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1217 mL	15.6084 mL	31.2168 mL
5 mM	0.6243 mL	3.1217 mL	6.2434 mL
10 mM	0.3122 mL	1.5608 mL	3.1217 mL
50 mM	0.0624 mL	0.3122 mL	0.6243 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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