

NF-κB-IN-8

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 2924565-59-1 |
| Formula: | C ₂₄ H ₂₁ N ₃ O ₃ |
| Molecular Weight: | 399.44 |
| 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

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|---------------|--|
| Description | NF-κB-IN-8 is a competitive antagonist of LPS for MD-2 binding, and it impedes the expression of inflammatory factors by engaging MD-2. Additionally, it inhibits ALP activity and is usable in inflammation research, including acute lung injury (ALI) [1]. |
| Targets(IC50) | NF-κB |
| In vitro | NF-κB-IN-8 (compound L26) at a concentration of 10 μM inhibits 64.30% of ALP activity [1]. Additionally, within a range of 1-10 μM for 24 hours, NF-κB-IN-8 suppresses the expression of IL-6 and TNF-α in RAW 264.7 cells [1]. At concentrations spanning from 0 to 50 μM, NF-κB-IN-8 hinders the binding of LPS to MD-2, as detected by ELISA [1]. At 50 μM, administered overnight, the compound prevents the formation of the LPS/MD-2/TLR4 complex in RAW264.7 cells [1]. |
| In vivo | NF-κB-IN-8 (Compound L26), administered orally at a dose of 5 mg/kg, mitigated LPS-induced acute lung injury in mice [1]. At higher doses of 1000 and 1500 mg/kg, NF-κB-IN-8 demonstrated low toxicity and was deemed safe in mice [1]. In rats, with an administered dose of 0 mg/kg, NF-κB-IN-8 exhibited a half-life (T _{1/2}) of 4.2 hours and a maximum concentration (C _{max}) of 163.288 μg/L [1]. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|-----------|
| 1 mM | 2.5035 mL | 12.5175 mL | 25.035 mL |
| 5 mM | 0.5007 mL | 2.5035 mL | 5.007 mL |
| 10 mM | 0.2504 mL | 1.2518 mL | 2.5035 mL |
| 50 mM | 0.0501 mL | 0.2504 mL | 0.5007 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

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