

## IQ-1S

## Chemical Properties

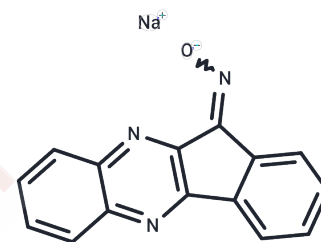
CAS No. : 1421610-21-0

Formula: C<sub>15</sub>H<sub>8</sub>N<sub>3</sub>NaO

Molecular Weight: 269.23

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                | IQ-1S is an inhibitor of NF-κB/activating protein 1 (AP-1) with an IC <sub>50</sub> of 1.8 μM. It exhibits high binding affinity to all three JNKs, with K <sub>d</sub> values for JNK3, JNK2, and JNK1 being 87 nM, 360 nM, and 390 nM, respectively.  |
| Targets(IC <sub>50</sub> ) | JNK   |
| In vitro                   | IQ-1S (the sodium salt of IQ-1) is a potent, non-cytotoxic inhibitor of pro-inflammatory cytokines [IL-1α, IL-1β, IL-6, IL-10, TNF-α, interferon-γ, and GM-CSF], as well as nitric oxide produced by human and mouse monocytes/macrophages. The impact of IQ-1 on LPS-induced cytokine production in human PBMCs was evaluated. Among the 12 cytokines analyzed, LPS (200 ng/mL) consistently induced the production of five cytokines (IL-1α, IL-1β, IL-6, IL-10, and TNF-α) in PBMCs compared to DMSO-treated control cells. At a concentration of 20 μM, IQ-1 significantly inhibited the production of all these cytokines. Notably, TNF-α production was nearly completely suppressed (>99%) by IQ-1, while levels of IL-1α, IL-1β, and IL-10 were reduced by 85%, and IL-6 production decreased by 33%. |
| In vivo                    | When administered via intraperitoneal injection in mice at doses of 12.5 and 30 mg/kg, IQ-1S (sodium salt of IQ-1) demonstrated adequate serum exposure, with AUC 0-12h values of 2.9 and 7.4 μM/h, respectively.   |

### Preparing Stock Solutions

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|       | <b>1mg</b> | <b>5mg</b> | <b>10mg</b> |
|-------|------------|------------|-------------|
| 1 mM  | 3.7143 mL  | 18.5715 mL | 37.143 mL   |
| 5 mM  | 0.7429 mL  | 3.7143 mL  | 7.4286 mL   |
| 10 mM | 0.3714 mL  | 1.8571 mL  | 3.7143 mL   |
| 50 mM | 0.0743 mL  | 0.3714 mL  | 0.7429 mL   |

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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.

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