



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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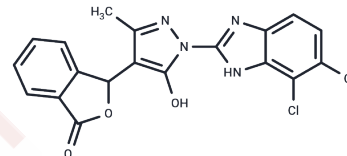
www.szabo-scandic.com

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RU.521

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 2262452-06-0 |
| Formula: | C ₁₉ H ₁₂ Cl ₂ N ₄ O ₃ |
| Molecular Weight: | 415.23 |
| Appearance: | no data available |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year |



Biological Description

| | |
|----------------------------|---|
| Description | RU.521 (RU3205217) is a potent dsDNA inhibitor (IC ₅₀ : 700 nM), inhibition of the dsDNA pathway by RU.521 requires the presence of cGAS. |
| Targets(IC ₅₀) | DNA,cGAS |
| In vivo | Treatment of primary BMDMs with RU.521 or its analogs reduced IFNB1 expression in mice, indicating their effectiveness in suppressing intrinsic DNA-dependent, constitutively-activated type I interferon expression in cells deficient of a cytoplasmic DNA exonuclease. |
| Cell Research | Small-molecule compounds were serially diluted to concentrations spanning the range tested in the response curves were added to 6.7×10 ⁵ RAW-Blue macrophages plated 16h prior in 96-well dishes, then harvested 72h after compound addition. ATP was measured using CellTiter Glo Viability Assay using 50μM Tamoxifen as a positive control for cytotoxicity. Viability values were generated using vehicle (DMSO) or the first dose as 100% and Tamoxifen as 0%. Outliers were removed. |
| Animal Research | the chronically elevated levels of cytokines observed in Trex1 null mice are a consequence of constitutively activated cGAS, due to the inability to eliminate aberrantly localized self-DNA. We harvested BMDMs from 6-8-week old Trex1 ^{-/-} mice, treated them with each compound, and measured expression levels of IFNB1 by quantitative reverse transcription PCR (qRT-PCR). Treatment of primary BMDMs with RU.521 or its analogs reduced IFNB1 expression, indicating their effectiveness in suppressing intrinsic DNA-dependent, constitutively-activated type I interferon expression in cells deficient of a cytoplasmic DNA exonuclease. |

Solubility Information

| | |
|------------|---|
| Solubility | DMSO: 125 mg/mL (301.04 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|-----------|
| 1 mM | 2.4083 mL | 12.0415 mL | 24.083 mL |
| 5 mM | 0.4817 mL | 2.4083 mL | 4.8166 mL |
| 10 mM | 0.2408 mL | 1.2042 mL | 2.4083 mL |
| 50 mM | 0.0482 mL | 0.2408 mL | 0.4817 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.

Reference

Li B, Xu L, Wang Z, et al. Neutrophil Extracellular Traps Regulate Surgical Brain Injury by Activating the cGAS-STING Pathway. *Cellular and Molecular Neurobiology*. 2024, 44(1): 36.
Vincent J, et al. Small molecule inhibition of

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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