For Research Use Only

IRAK-1-4 Inhibitor I

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Catalog Number: CM04856

产品信息

Catalog Number:
CM04856

CAS号:
509093-47-4

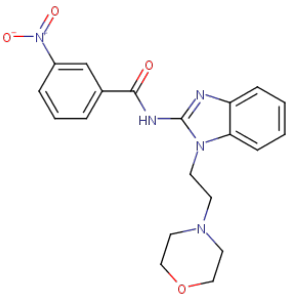
分子式:
$C_{20}H_{21}N_5O_4$

主要靶点:
IRAK

主要通路:
免疫与炎症|NF-κB信号通路

分子量:
395.41

溶解度:
DMSO:7.9 mg/mL(20 mM)



靶点活性

IRAK 4:0.3 μM|IRAK 1:0.2 μM

体外活性

IRAK-1-4 Inhibitor I has IC50 greater than the highest concentration tested (10 μM) against a panel of 27 other kinases, including the most closely homologous (outside of the IRAK family) Lck and pp60SRC. Additionally, IRAK-1-4 Inhibitor I does not show any signs of cytotoxicity in a 72 h proliferation assay in HeLa cells (ED50>30 μM). Significant inhibition of IRAK-1 is observed with IRAK-1-4 Inhibitor I (IRAK-1 IC50=0.3 μM)[1]. IRAK-1/4 inhibitor eliminates the LPS-induced increases in Bcl10, NF-κB, and IL-8. IRAK-1/4 mediates LPS-induced IL-8 activation and functions upstream of Bcl10. The LPS-induced increase in Bcl10 declines by 73% (from 5.18±0.22 to 2.36±0.08 ng/mL), and the IL-8 response decline by 60% (from 2.64±0.31 to 1.14±0.08 ng/mL)[2].

细胞实验

IRAK-1-4 Inhibitor I is dissolved in DMSO and stored, and then diluted with appropriate media before use[2]. NCM460 cells, grown in 24-well plates, are incubated with 50 μM IRAK-1/4 inhibitor for 2 h. After 2 h, the media are changed, and new media with or without LPS (10 ng/mL) added. Treatment is terminated at 6 h, and spent media and cells are collected for IL-8 and other assays[2].

描述

IRAK-1-4 Inhibitor I is a dual inhibitor of IRAK4 and IRAK1.

储存

Powder: -20°C for 3 years | In solvent: -80°C for 1 year