

IRAK-1-4 Inhibitor I

Catalog No: tcsc0704



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

509093-47-4

Formula:

$C_{20}H_{21}N_5O_4$

Pathway:

Immunology/Inflammation;Protein Tyrosine Kinase/RTK

Target:

IRAK;IRAK

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

IRAK-1/4 Inhibitor I

Observed Molecular Weight:

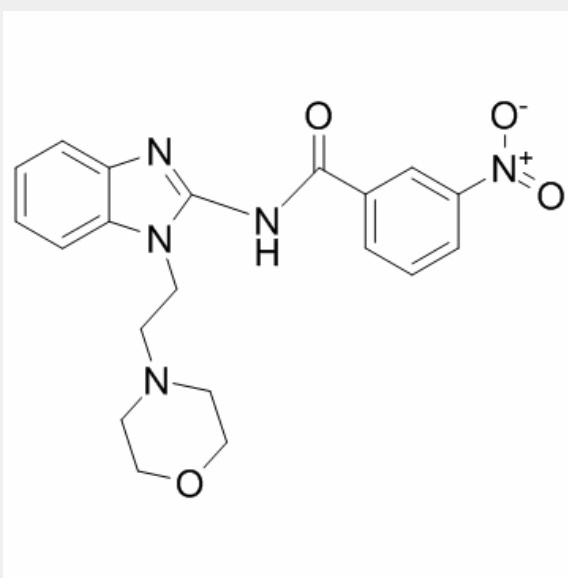
395.41

Product Description

IRAK-1-4 Inhibitor I is a dual inhibitor of **IRAK4** and **IRAK1** with **IC₅₀** of 0.2 μ M and 0.3 μ M, respectively.

IC50 & Target: IC50: 0.2 μ M (IRAK-4), 0.3 μ M (IRAK-1)^[1]

In Vitro: IRAK-1-4 Inhibitor I has IC₅₀ greater than the highest concentration tested (10 μ M) against a panel of 27 other kinases, including the most closely homologous (outside of the IRAK family) Lck and pp60^{SRC}. Additionally, IRAK-1-4 Inhibitor I does not show any signs of cytotoxicity in a 72 h proliferation assay in HeLa cells (ED₅₀>30 μ M). Significant inhibition of IRAK-1 is observed with IRAK-1-4 Inhibitor I (IRAK-1 IC₅₀=0.3 μ M)^[1]. IRAK-1/4 inhibitor eliminates the LPS-induced increases in Bcl10, NF- κ B, 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 \pm 0.22 to 2.36 \pm 0.08 ng/mL), and the IL-8 response decline by 60% (from 2.64 \pm 0.31 to 1.14 \pm 0.08 ng/mL)^[2].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!