

IRAK inhibitor 4

Catalog No: tcsc0606



Available Sizes

Size: 5mg



Specifications

CAS No:

1012104-68-5

Formula:

$C_{33}H_{35}F_3N_6O_3$

Pathway:

Immunology/Inflammation;Protein Tyrosine Kinase/RTK

Target:

IRAK;IRAK

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

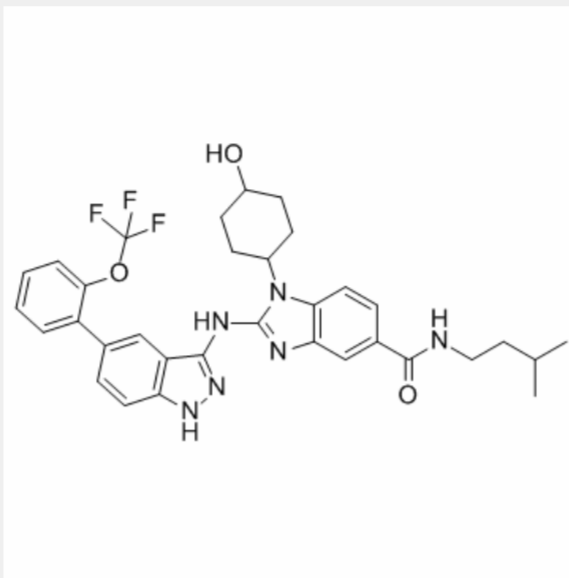
620.66

Product Description

IRAK inhibitor 4 is an interleukin-1 receptor associated kinase 4(**IRAK4**) inhibitor.

In Vitro: Lack of IRAK-4 impairs the production of proinflammatory mediators by macrophages and DCs in response to *M. bovis* and *M. tuberculosis*. IRAK-4^{-/-} cells stimulated with E. coli LPS display delayed activation kinetics of all signaling proteins analyzed, and exhibit dramatically reduced p65 phosphorylation^[1]. IRAK1/4 (20 μM) has an inhibitory effect on LPS mediated IL-6 production. IRAK1/4 inhibitor do not decrease p38 phosphorylation in AMs. Combination of IRAK1/4 and Rip2 inhibitors inhibits TLR2-mediated cytokine production in sarcoidosis PBMCs and AMs^[2]. IRAK4 is overexpressed and activated in T-ALL. IRAK4 mRNA level is elevated in T-ALL cells from patients compared with the levels detected in thymic T cells or T cells from peripheral blood^[3].

In Vivo: IRAK-4^{-/-} mice exhibit a greatly reduced survival rate following aerosol infection compared with IRAK-4^{+/+} or IRAK-4^{+/-} mice. IRAK-4^{-/-} mice show increased bacterial burden in all organs at 15, 30, and 60 d postinfection^[1]. MCL1, but not BCL-xL, overrides the therapeutic effects of combinatorial IRAK1/4 inhibitor and ABT-737 therapy in vivo^[3].



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