

AR-A014418

Catalog No: tcsc1469



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

487021-52-3

Formula:

$C_{12}H_{12}N_4O_4S$

Pathway:

Stem Cell/Wnt;PI3K/Akt/mTOR

Target:

GSK-3;GSK-3

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 100 mg/mL (324.35 mM)

Alternative Names:

AR 0133418;GSK 3 β inhibitor VIII;AR 014418

Observed Molecular Weight:

308.31

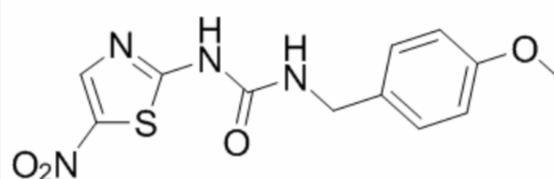
Product Description

AR-A014418 is a potent, selective and ATP-competitive **GSK3 β** inhibitor with an **IC₅₀** of 104 nM^[1]

IC50 & Target: IC50: 104 nM (GSK3 β)^[1]

In Vitro: AR-A014418 blocks the phosphorylation of tau at a GSK3-specific site (Ser-396) in 3T3 fibroblasts expressing human four-repeat tau protein, with an IC₅₀ of 2.7 μ M, and protects cultured N2A cells from death caused by PI3K/PKB pathway blockage. AR-A014418 also shows inhibitory effect on neurodegeneration mediated by beta-amyloid peptide in hippocampal slices^[1]. AR-A014418 decreases neuroendocrine markers and suppresses neuroblastoma cell growth in NGP and SH-5Y-SY cells^[2].

In Vivo: AR-A014418 (0-4 mg/kg, i.p.) delays the onset of symptoms, enhances motor activity, blocks disease progression, and postpones the endpoint of the disease in ALS mouse model with the G93A mutant human SOD1^[3]. Furthermore, AR-A014418 suppresses acetic acid- and formalin-induced nociception in mice via modulating NMDA and metabotropic receptor signaling as well as TNF- α and IL-1 β transmission in the spinal cord^[4].



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