



Data Sheet

Research Use Only

Compound Name

SB216763

Catalog Number

SM90

Activity

SB216763 is a potent, selective, and cell permeable glycogen synthase kinase-3 (GSK-3) inhibitor. It competes with ATP and potently inhibits the activity α and β isozymes of GSK-3. GSK-3 is a serine/threonine protein kinase that is inhibited by an assortment of extracellular stimuli including insulin, growth factors, cell specification factors, and cell adhesion.

Purity

>98%

Formula

 $C_{19}H_{12}Cl_2N_2O_2$

Solubility

DMSO

Alternative Names

SB-216763, SB 216763, 3-(2,4-Dichlorophenyl)-4-(1-methyl-1H-indol-3-yl)-1H-pyrrole-2,5-dione

Effect

SB216763 protects both central and peripheral nervous system neurones in culture from death induced by reduced PI 3-kinase pathway activity. Treatment of primary neural progenitor cells with SB216763 resulted in an increase in the percentage of TuJ1-positive immature neurons, suggesting an inhibitory role of GSK3 in embryonic neurogenesis. It stimulates glycogen synthesis in Chang human liver cells. SB216763 treatment reduces cell viability in a dose-dependent manner, and leads to significant increase in apoptosis due to the specific down regulation of GSK-3 β .

CAS

280744-09-4

Molecular Weight

371.22

Stability

Stable at -20°C. Keep away from direct sunlight.

References

1. Cross, DA., et al. 2001. J Neurochem. 77(1): 94-102. PMID: 11279265
2. Gross, ER., et al. 2008. Am J Physiol Heart Circ Physiol. 294(3): H1497-1500. PMID: 18223186
3. Ahn, J., et al. 2014. Stem Cells Dev. 23(10): 1121-1133. PMID: 24397546
4. Lee, CL., et al. 2014. Radiat Res. 181(5): 445-451. PMID: 24720754