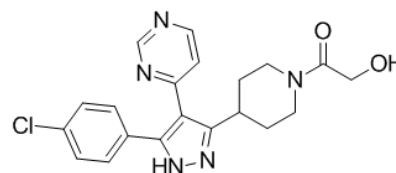


Product Name : SD0006
Cat. No. : PC-42805
CAS No. : 271576-80-8
Molecular Formula : C₂₀H₂₀ClN₅O₂
Molecular Weight : 397.8581
Target : p38 MAPK
Solubility : DMSO: ≥ 29 mg/mL

1. Burnette BL, et al. *Pharmacology*. 2009;84(1):42-60.
 2. Walker JK, et al. *Bioorg Med Chem Lett*. 2010 Apr 15;20(8):2634-8.



Biological Activity

SD0006 (SD-0006, SD-06) is a potent, selective, ATP-competitive and orally bioavailable **p38α** inhibitor with K_i of 61 nM. SD0006 displays 8-fold selectivity over p38β (K_i=510 nM), and greater than 100-fold selectivity based upon IC₅₀ ratios over the other MAPKs p38γ, p38δ, ERK-2 and JNK-1, -2, and -3. SD0006 potently inhibits tumor necrosis factor-alpha (TNFα) release, in vitro and in vivo, with IC₅₀ of <200 nM. SD0006 is effective in the rat streptococcal-cell-wall-induced arthritis model, with dramatic protective effects on paw joint integrity and bone density as shown by radiographic analysis. SD0006 also demonstrates good oral anti-inflammatory efficacy with excellent cross-species correlation between the rat, cynomolgus monkey, and human.

References

