

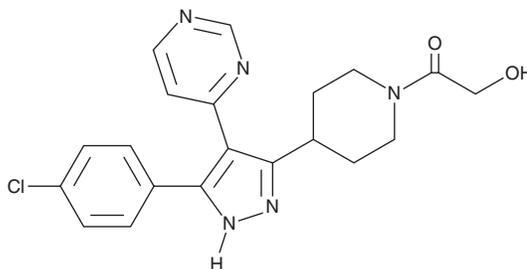
PRODUCT INFORMATION



SD-06

Item No. 30686

CAS Registry No.: 271576-80-8
Formal Name: 1-[4-[5-(4-chlorophenyl)-4-(4-pyrimidinyl)-1H-pyrazol-3-yl]-1-piperidinyl]-2-hydroxy-ethanone
Synonym: SD-006
MF: C₂₀H₂₀ClN₅O₂
FW: 397.9
Purity: ≥98%
UV/Vis.: λ_{max}: 240, 282 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SD-06 is supplied as a solid. A stock solution may be made by dissolving the SD-06 in the solvent of choice, which should be purged with an inert gas. SD-06 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of SD-06 in these solvents is approximately 15 and 10 mg/ml, respectively.

SD-06 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SD-06 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SD-06 has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SD-06 is an ATP-competitive inhibitor of p38α MAPK (IC₅₀ = 0.016 μM).¹ It is selective for p38α over p38β, p38γ, and p38δ MAPKs (IC₅₀s = 0.677, >100, and >100 μM, respectively), as well as a panel of 54 additional kinases (IC₅₀s = >3 μM for all). SD-06 inhibits LPS-induced TNF-α, IL-6, and IL-1β release from primary human monocytes (IC₅₀s = 79.4, 106.9, and 105.9 nM, respectively). It decreases IL-1β-induced production of prostaglandin E₂ (PGE₂; Item No. 14010) in patient-derived rheumatoid arthritis synovial fibroblasts (RASFs; IC₅₀ = 96.2 nM). SD-06 (30 mg/kg) reduces carrageenan-induced paw swelling and hyperalgesia in rats. It also reduces the incidence of arthritis in a mouse model of collagen-induced arthritis and protects against joint and bone destruction in a rat model of streptococcal cell wall-induced arthritis.

Reference

1. Burnette, B.L., Selness, S., Devraj, R., et al. SD0006: A potent, selective and orally available inhibitor of p38 kinase. *Pharmacology* **84**(1), 42-60 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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