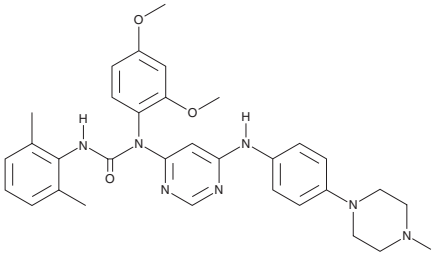
PRODUCT INFORMATION

HG-9-91-01

Item No. 19179

CAS Registry No.:	1456858-58-4
Formal Name:	N-(2,4-dimethoxyphenyl)-N'-(2,6-dimethylphenyl)-N-[6-[[4-(4-methyl-1-piperazinyl)phenyl]amino]-4-pyrimidinyl]-urea
MF:	$C_{32}H_{37}N_7O_3$
FW:	567.7
Purity:	≥95%
UV/Vis.:	λ_{max}: 303 nm
Supplied as:	A crystalline 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

HG-9-91-01 is supplied as a crystalline solid. A stock solution may be made by dissolving the HG-9-91-01 in the solvent of choice, which should be purged with an inert gas. HG-9-91-01 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of HG-9-91-01 in ethanol and DMF is approximately 5 mg/ml and 3 mg/ml in DMSO.

HG-9-91-01 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, HG-9-91-01 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. HG-9-91-01 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

HG-9-91-01 is an inhibitor of salt-inducible kinases (SIKs; IC_{50}s = 0.92, 6.6, and 9.6 nM for SIK1, SIK2, and SIK3, respectively).[1] It also inhibits Src, Lck, Yes, and BTK, as well as FGF and Ephrin receptors.[1] HG-9-91-01 increases LPS-stimulated IL-10 production and suppresses pro-inflammatory cytokine secretion in bone marrow-derived macrophages.[1] SIK inhibitors, including HG-9-91-01, enhance CREB-dependent gene transcription and IL-10 production in bone marrow-derived dendritic cells, THP-1 cells, and human primary macrophages.[1]

Reference

1. Clark, K., MacKenzie, K.F., Petkevicius, K., *et al.* Phosphorylation of CRTC3 by the salt-inducible kinases controls the interconversion of classically activated and regulatory macrophages. *Proc. Natl. Acad. Sci. USA* **109(42)**, 16986-16991 (2012).

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