

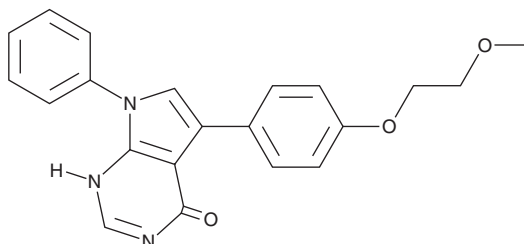
PRODUCT INFORMATION



DMX-5084

Item No. 42334

CAS Registry No.: 2306178-56-1
Formal Name: 3,7-dihydro-5-[4-(2-methoxyethoxy)phenyl]-7-phenyl-4H-pyrrolo[2,3-d]pyrimidin-4-one
MF: C₂₁H₁₉N₃O₃
FW: 361.4
Purity: ≥98%
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

DMX-5084 is supplied as a solid. A stock solution may be made by dissolving the DMX-5084 in the solvent of choice, which should be purged with an inert gas. DMX-5084 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

DMX-5084 is an inhibitor of MAP4K4 (IC₅₀ = 3 nM).¹ It is selective for MAP4K4 over a panel of 141 kinases at 1 μM but does inhibit MAP4K6 and TRAF2- and NCK-interacting kinase (TNIK; IC₅₀s = 6.61 and 10.96 nM, respectively). DMX-5084 prevents hydrogen peroxide-induced decreases in viability in vCor.4U ventricular cardiomyocytes (EC₅₀ = 3.16 nM). It inhibits decreases in the oxygen consumption rate (OCR) and extracellular acidification rate (ECAR) induced by menadione (vitamin K₃; Item No. 15950) in vCor.4U cells when used at concentrations of 3 or 10 μM. DMX-5084 prevents menadione-induced decreases in the number of beats per minute and force of contraction in a 3D human-engineered heart tissue (hEHT) model using vCor.4U cells. *In vivo*, DMX-5084 (50 mg/kg) reduces infarct size in a mouse model of ischemia-reperfusion injury induced by left anterior descending (LAD) coronary artery occlusion.

Reference

1. Fiedler, L.R., Chapman, K., Xie, M., *et al.* MAP4K4 inhibition promotes survival of human stem cell-derived cardiomyocytes and reduces infarct size *in vivo*. *Cell Stem Cell* **24**(4), 579-591 (2019).

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.

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