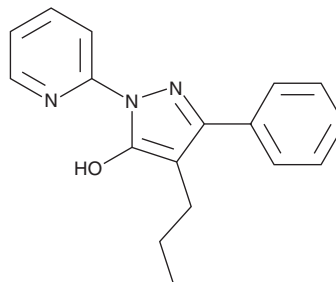


PRODUCT INFORMATION

APX-115

Item No. 41110

CAS Registry No.: 1270084-92-8
Formal Name: 3-phenyl-4-propyl-1-(2-pyridinyl)-1H-pyrazol-5-ol
Synonym: EWHA-18278
MF: C₁₇H₁₇N₃O
FW: 279.3
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

APX-115 is supplied as a solid. A stock solution may be made by dissolving the APX-115 in the solvent of choice, which should be purged with an inert gas. APX-115 is slightly soluble (1-10 mg/ml) in ethanol and DMSO.

Description

APX-115 is an inhibitor of NADPH oxidase 1 (NOX1), NOX2, and NOX4 (K_i s = 1.08, 0.57, and 0.63 μ M, respectively, for the human enzymes).¹ It is selective for these enzymes over xanthine oxidase and glucose oxidase (K_i s = >100 μ M for both). APX-115 (10 or 20 μ M) prevents RANKL-induced increases in reactive oxygen species (ROS) levels in primary mouse bone marrow-derived macrophages (BMDMs). It inhibits GM-CSF- and RANKL-induced primary mouse osteoclast differentiation when used at concentrations of 1.1, 3.3, or 10 μ M. APX-115 (10 mg/kg per day) increases femur bone mass density and strength and reduces femur and tibia resorption areas in ovariectomized (OVX) mice. It reduces plasma and urinary levels of 8-isoprostane, a marker for lipid oxidation, plasma levels of insulin, triglycerides, HDL, LDL, and creatinine, urinary levels of albumin, as well as renal fibrosis, in a *db/db* mouse model of diabetic nephropathy when administered at a dose of 60 mg/kg per day.²

References

1. Joo, J.H., Huh, J.E., Lee, J.H., *et al.* A novel pyrazole derivative protects from ovariectomy-induced osteoporosis through the inhibition of NADPH oxidase. *Sci. Rep.* **15**(6), 22389 (2016).
2. Cha, J.J., Min, H.S., Kim, K.T., *et al.* APX-115, a first-in-class pan-NADPH oxidase (Nox) inhibitor, protects *db/db* mice from renal injury. *Lab Invest.* **97**(4), 419-431 (2017).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM