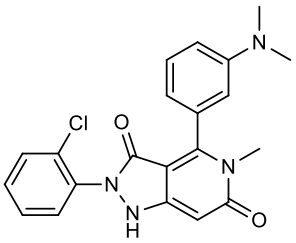
Catalog # 10-5044

GKT-137831

CAS# 1218942-37-0

2-(2-Chlorophenyl)-4-[3-(dimethylamino)phenyl]-5-methyl-1H-pyrazolo[4,3-c]pyridine-3,6(2H,5H)-dione

Lot # X109736



NADPH oxidase, NOX1/4 inhibitor (K_i = 100-150 nM).[1] Inhibits erastin-stimulated ROS production.[2] Potentiates immunotherapy by overcoming cancer-associated fibroblast- mediated $CD8^+$ T-cell exclusion.[3] Reduces ROS production in LPS-stimulated platelets in a mouse model.[4] Reduces subarachnoid hemorrhage-induced neuronal death.[5] Potent inhibitor of experimental liver fibrosis in mouse models.[6]

1) Jiang *et al*. (2012), *Liver fibrosis and hepatocyte apoptosis are attenuated by GKT137831, a novel NOX4/NOX1 inhibitor in vivo*; Free Radic. Biol. Med., **53** 289
2) Dachert *et al*. (2020), *Targeting ferroptosis in rhabdomyosarcoma cells*; Int. J. Cancer, **146(2)** 510
3) Ford *et al*. (2020), *NOX4 Inhibition Potentiates Immunotherapy by Overcoming Cancer-Associated Fibroblast-Mediated CD8 T-cell Exclusion from Tumors*; Cancer Res., **80** 1846
4) Naime *et al.* (2019), *Tumor necrosis factor alpha has a crucial role in increased reactive oxygen species production in platelets of mice injected with lipopolysaccharide*; Platelets, **30** 1047
5) Zhang *et al*. (2017), *Involvement of Nox2 and Nox4 NADPH oxidases in early brain injury after subarachnoid hemorrhage*; Free Radic. Res., **51** 316
6) Aoyama *et al*. (2012), *Nicotinamide adenine dinucleotide phosphate oxidase in experimental liver fibrosis: GKT137831 as a novel potential therapeutic agent*; Hepatology, **56** 2316

PHYSICAL DATA

Molecular Weight:	394.85
Molecular Formula:	$C_{21}H_{19}ClN_4O_2$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 65 mg/ml)
Physical Description:	Pale-yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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