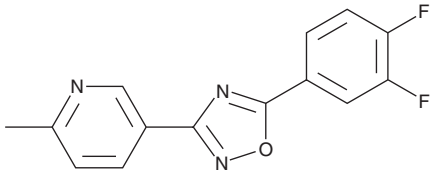
PRODUCT INFORMATION

DDO-7263

Item No. 36786

CAS Registry No.:	2254004-96-9
Formal Name:	5-[5-(3,4-difluorophenyl)-1,2,4-oxadiazol-3-yl]-2-methyl-pyridine
MF:	$C_{14}H_9F_2N_3O$
FW:	273.2
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

DDO-7263 is supplied as a solid. A stock solution may be made by dissolving the DDO-7263 in the solvent of choice, which should be purged with an inert gas. DDO-7263 is slightly soluble (0.1-1 mg/ml) in methanol and DMSO.

Description

DDO-7263 is an activator of the Nrf2-ARE pathway.[1] It induces Nrf2-mediated transcription in a reporter assay using HepG2 cells expressing the antioxidant response element (ARE) at 0.01-80 µM.[2] DDO-7263 binds to the 26S proteasome regulatory subunit RPN6 and prevents proteasomal degradation of ubiquitinated Nrf2.[1] It reduces cell death induced by acetaminophen (Item No. 10024) in L-02 hepatocytes at 5-20 µM and reduces acetaminophen-induced liver injury in mice at 50-100 mg/kg.[2] DDO-7263 also reduces dopaminergic cell death in the substantia nigra and striatum and improves motor activity in a mouse model of MPTP-induced Parkinson's disease.[3]

References

1. Dai, Z., An, L., Chen, X., *et al.* Target fishing reveals a novel mechanism of 1,2,4-oxadiazole derivatives targeting Rpn6, a subunit of 26S proteasome. *J. Med. Chem.* **65(6)**, 5029-5043 (2022).
2. Xu, L.L., Wu, Y.F., Wang, L., *et al.* Structure-activity and structure-property relationships of novel Nrf2 activators with a 1,2,4-oxadiazole core and their therapeutic effects on acetaminophen (APAP)-induced acute liver injury. *Eur. J. Med. Chem.* **157**, 1376-1394 (2018).
3. Xu, L.L., Wu, Y.F., Yan, F., *et al.* 5-(3,4-Difluorophenyl)-3-(6-methylpyridin-3-yl)-1,2,4-oxadiazole (DDO-7263), a novel Nrf2 activator targeting brain tissue, protects against MPTP-induced subacute Parkinson's disease in mice by inhibiting the NLRP3 inflammasome and protects PC12 cells against oxidative stress. *Free Radic. Biol. Med.* **134**, 288-303 (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.

WARRANTY AND LIMITATION OF REMEDY
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