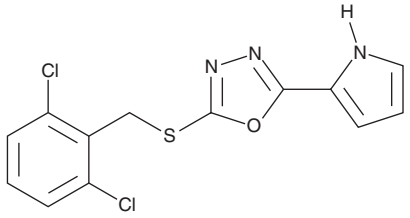
PRODUCT INFORMATION

Dooku1

Item No. 39161

CAS Registry No.:	2253744-54-4
Formal Name:	2-[[(2,6-dichlorophenyl)methyl]thio]-5-(1H-pyrrol-2-yl)-1,3,4-oxadiazole
MF:	$C_{13}H_9Cl_2N_3OS$
FW:	326.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 296 nm
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

Dooku1 is supplied as a solid. A stock solution may be made by dissolving the dooku1 in the solvent of choice, which should be purged with an inert gas. Dooku1 is soluble in methanol and DMSO.

Description

Dooku1 is an antagonist of yoda1-activated Piezo1 ion channels (IC_{50} = 1.3 µM in HEK293 cells expressing the human receptor).[1] It is selective for Piezo1 activated by yoda1 (Item No. 21904) over constituitively active Piezo1, transient receptor potential vanilloid 4 (TRPV4), and transient receptor potential canonical 4 (TRPC4) at 10 µM. Dooku1 (10 µM) reduces the percentage of cells with yoda1-induced extracellular phosphatidylserine exposure in red blood cells (RBCs) isolated from patients with sickle cell anemia.[2] Preincubation with dooku1 (10 µM) inhibits yoda1-induced relaxation of isolated mouse aortic rings.[1]

References

1. Evans, E.L., Cuthbertson, K., Endesh, N., *et al.* Yoda1 analogue (Dooku1) which antagonizes Yoda1-evoked activation of Piezo1 and aortic relaxation. *Br. J. Pharmacol.* **175(10),** 1744-1759 (2018).
2. Wadud, R., Hannemann, A., Rees, D.C., *et al.* Yoda1 and phosphatidylserine exposure in red cells from patients with sickle cell anaemia. *Sci. Rep.* **10(1),** 20110 (2020).

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