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DATASHEET

Dooku 1

Product overview

Name	Dooku 1
Cat No	HB8740
Biological action	Antagonist
Purity	>98%
Description	Competitive antagonist of the widely used PIEZO1 channel activator Yoda1

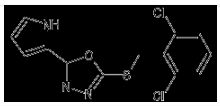
Biological Data

Biological description	Competitive antagonist of the widely used PIEZO1 channel activator Yoda1. Does not affect constitutive Piezo1 channel activity. Dooku1 is commonly used as an antagonist of Yoda1-induced effects. Shown to antagonize Yoda1-induced Piezo1 channel activation in endothelial cells, Yoda1-induced relaxation of aorta *ex vivo* and also inhibits Yoda1-induced Ca^{2+} entry *in vitro*.

Solubility & Handling

Storage instructions	+4°C
Solubility overview	Soluble in DMSO (100 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	2-[(2,6-Dichlorobenzyl)thio)-5-(1H-pyrrol-2-yl)-1,3,4-oxadiazole
Molecular Weight	326.2
Chemical structure	
Molecular Formula	$C_{13}H_9Cl_2N_3OS$
CAS Number	2253744-54-4
PubChem identifier	137321150
SMILES	C1=CC(=C(C(=C1)Cl)CSC2=NN=C(O2)C3=CC=CN3)Cl
InChi	InChI=1S/C13H9Cl2N3OS/c14-9-3-1-4-10(15)8(9)7-20-13-18-17-12(19-13)11-5-2-6-16-11/h1-6,16H,7H2
InChiKey	MNPOBXLPCWFONX-UHFFFAOYSA-N

References

Yoda1 analogue (Dooku1) which antagonizes Yoda1-evoked activation of Piezo1 and aortic relaxation.

Evans EL et al (2018) British journal of pharmacology 175

PubMedID 29498036

Piezo1 channel activation stimulates ATP production through enhancing mitochondrial respiration and glycolysis in vascular endothelial cells.

Jiang M et al (2023) British journal of pharmacology 180
PubMedID 36740831

Dual action of Dooku1 on PIEZO1 channel in human red blood cells.

Hatem A et al (2023) Frontiers in physiology 14
PubMedID 37492641