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## DATASHEET

Dooku 1

### Product overview

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

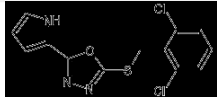
### Biological Data

<b>Biological description</b>	Competitive antagonist of the widely used PIEZO1 channel activator <b>Yoda1</b> . Does not affect constitutive Piezo1 channel activity. Dooku1 is commonly used as an antagonist of Yoda1-induced effects. Shown to antagonize <b>Yoda1</b> -induced Piezo1 channel activation in endothelial cells, Yoda1-induced relaxation of aorta <i>ex vivo</i> and also inhibits Yoda1-induced Ca <sup>2+</sup> entry <i>in vitro</i> .
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### Solubility & Handling

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

### Chemical Data

<b>Chemical name</b>	2-[(2,6-Dichlorobenzyl)thio]-5-(1H-pyrrol-2-yl)-1,3,4-oxadiazole
<b>Molecular Weight</b>	326.2
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>13</sub> H <sub>9</sub> Cl <sub>2</sub> N <sub>3</sub> OS
<b>CAS Number</b>	2253744-54-4
<b>PubChem identifier</b>	137321150
<b>SMILES</b>	C1=CC(=C(C(=C1)Cl)CSC2=NN=C(O2)C3=CC=CN3)Cl
<b>InChi</b>	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
<b>InChiKey</b>	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](#)

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