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## DATASHEET

KC159

### Product overview

<b>Name</b>	KC159
<b>Cat No</b>	HB7601
<b>Biological action</b>	Activator
<b>Purity</b>	>98%
<b>Description</b>	Novel, selective Piezo1 channel activator. Improved efficacy and potency compared to Yoda1.

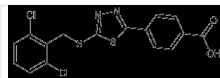
### Biological Data

<b>Biological description</b>	Novel, selective Piezo1 channel activator which shows improved (or equivalent) reliability, efficacy and potency in functional assays compared to <b>Yoda1</b> but is less potent than <b>Yoda2 (KC289)</b> (EC <sub>50</sub> values are 280nM, 150nM and 600nM at mouse Piezo1 in calcium assays for KC159, <b>Yoda2 (KC289)</b> and Yoda1 respectively). Selective for Piezo1 over other membrane proteins and shows improved aqueous solubility compared to Yoda1. Active in vivo and shows vasorelaxant effects. Yoda1 analogue.
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### Solubility & Handling

<b>Storage instructions</b>	Room Temperature
<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>	4-(5-[[[(2,6-dichlorophenyl)methyl]sulfanyl]-1,3,4-thiadiazol-2-yl])benzoic acid
<b>Molecular Weight</b>	397.3
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>16</sub> H <sub>10</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>2</sub> S <sub>2</sub>
<b>SMILES</b>	O=C(O)c1ccc(cc1)c1nnc(SCc2c(Cl)cccc2Cl)s1
<b>Source</b>	Synthetic
<b>InChi</b>	InChI=1S/C16H10Cl2N2O2S2/c17-12-2-1-3-13(18)11(12)8-23-16-20-19-14(24-16)9-4-6-10(7-5-9)15(21)22/h1-7H,8H2,(H,21,22)
<b>InChiKey</b>	KFIUJWYVLYQUOY-UHFFFAOYSA-N

### References

#### Improved PIEZO1 agonism through 4-benzoic acid modification of Yoda1.

Parsonage G et al (2023) British journal of pharmacology 180

**PubMedID** [36457143](https://pubmed.ncbi.nlm.nih.gov/36457143/)

