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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. |

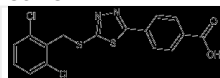
### Biological Data

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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. |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 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.

