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DATASHEET

KC159

Product overview

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

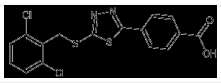
Biological Data

Biological description	Novel, selective Piezo1 channel activator which shows improved (or equivalent) reliability, efficacy and potency in functional assays compared to Yoda1 but is less potent than Yoda2 (KC289) (EC_{50} values are 280nM, 150nM and 600nM at mouse Piezo1 in calcium assays for KC159, Yoda2 (KC289) 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

Solubility overview	Soluble in DMSO (100 mM)
Storage instructions	Room Temperature
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions	Stable for ambient temperature shipping. Follow storage instructions on receipt.
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	4-(5-{[(2,6-dichlorophenyl)methyl]sulfanyl}-1,3,4-thiadiazol-2-yl)benzoic acid
Molecular Weight	397.3
Chemical structure	
Molecular Formula	$C_{16}H_{10}Cl_2N_2O_2S_2$
SMILES	O=C(O)c1ccc(cc1)c1nnc(SCc2c(Cl)cccc2Cl)s1
Source	Synthetic
InChi	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)
InChiKey	KFIUJWYVLYQUOY-UHFFFAOYSA-N

References

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

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

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